

LANGUAGE LEARNING

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LANGUAGE LEARNING

A Journal of Applied Linguistics

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Research Club in Language Learning

DEDICATION

A dedication is an expression of indebtedness as well as affection and respect. The affection and respect are primarily private emotions, of which it is better to speak than to write, and better to demonstrate than to speak of. Many of the authors of these contributions have had their special reasons for affection and respect, and their special opportunities to demonstrate them.

The readers share the indebtedness. Indeed, not only the readers today, but readers for years to come; and many who may never see these pages are and will be the better and the more useful because of the labor of Charles Fries.

That labor has had three sources: an uncommonly rich background of knowledge, an uncommon zeal to add to his own and others' knowledge, and an almost fanatical devotion to the task of putting knowledge to use.

Charles Fries, long ago, knew a great deal about several languages, modern and ancient: -- no monolingual or glotto-centric blinkers narrowed his study of linguistic behavior and structure. He duly acquired the invaluable techniques and insights we all owe to the neo-grammarians of the later 19th century, who have given us so many answers to important "Why?" and "Whence?" questions. (If they left unanswered some "What?" and "How?" questions, a later generation may decide how much can reasonably be expected of a few hundred scholars faced with a huge complex body of data.) But Charles Fries was no complacent heir of a great tradition. Early in his career, he knew that as a linguist he was no stranger to linguistic phenomena, near as well as far, today's as well as yesterday's, humble as well as genteel, colloquial as well as belietristic.

His willingness to extend the material of linguistic research was paralleled by a willingness to refine the techniques. He participated in the exciting new insights and methodologies of the 20s and 30s.

And he saw living American English as an object of scientific study -- and as a language to be learned as a second language.

During the 40s and 50s he has ridden these twin (but by no means tractable!) horses. We have seen him snatching time from his research to administer, from his administration to do research.

The consistent trait of both endeavors has been dissatisfaction with what has so far been achieved. His insistence on improvement, on testing and rejecting and improving and replacing and then testing again, has led him and pushed his associates. Those who know him are aware of his honest pride in what has so far been accomplished; but those who know him best are even more aware of his Faustian self-dedication to improvement: more and better work from himself and his associates to correct his and their past imperfections, to extend the applicability of his and their successes over hemispheres and across oceans.

It is one of his strengths that he has been eager to enlist first-rate talents. Without his colleagues' and his wife's help, less would have been accomplished. That they have helped is, for purposes of a dedication, a tribute to him and his mission. We may be sure that those parts of this publication will give him the greatest pleasure which reflect his perfectionism, especially if one of his co-workers has been able to improve significantly over one of the many significant contributions of

CHARLES CARPENTER FRIES,

to whom this volume is gratefully, affectionately,
and respectfully dedicated.

W. FREEMAN TWADDELL
Brown University

LINGUISTICS AND TEACHING INTRODUCTORY LITERATURE

Seymour Chatman
University of Pennsylvania

I assume that the purpose of introductory courses in English literature is to teach students how to read it. Yet many college students, in spite of the best intentions, never *do* learn to read the masterpieces of our language with even elementary comprehension. One reason for their failure is that the basic skill of interpretation is all too easily assumed by the instructor, whose anxiety is to prove the value of literature or whose scholarly interests may insulate him from the beginner's major problems. The kind of English which we want our students to learn to read differs strikingly from the kind they are used to. For the first time, they must try to make plain sense out of a dialect which is infinitely more subtle in lexical distinction and more complex in structure than any they have ever known; and there is no use in minimizing the size and dangers of the linguistic gap that yawns before them.

The central problem in the teaching of literature is to bridge the gap: to show students how to expand and refine their disturbingly narrow grasp of potential structures, to develop a whole new syntactic and lexical musculature for dealing with the complexities of Milton, Shakespeare and Pope. One way to accomplish this is to treat the text almost as if it were a foreign language (for it is at least a foreign dialect), to be parsed and worked over until pattern and meaning are learned and overlearned. All the devices that linguistics has developed for teaching foreign languages might be tried: substitution within a frame, imitative oral drill (with particular attention to stress, pitch and juncture), restructuring for analysis, expansion and omission, etc. Furthermore, the instructor must be aware at every moment of the specific linguistic complexities of the piece he is teaching in relation to the level of his class. This is as important to his immediate job as a knowledge of mythic patterns in the Modern English

novel or what nasty fellows Elizabethan printers were. He must attempt--and it is a painful job--to uncover the multifoliate layers of his own literary sophistication and put himself in his students' position. He must realize that students are unable to move with the linguistic facility that he has developed in himself, that they are not alert to the lexical and structural possibilities of language and are quickly reduced to helplessness if the first meaning which comes to mind proves untenable. Nor are they willing to pore over a passage until it makes sense, because they know that more than poring will be needed to help *them*.

Let us consider three areas where linguistics might be helpful. I. Lexicon. We must be careful not to shrug our shoulders over the lexical problem and say 'It's all in the dictionary.' First of all, the facts of American college life are such that we cannot count on a student to *buy* a decent dictionary, let alone use one. This bit of student pathology, of course, is not our problem. What is disturbing is that even where a student shows a willingness to use the dictionary, it is all too clear that he often doesn't know *when*. Most students dutifully look up words that they don't 'know'; that is, *words that they've never seen before*. But it isn't the unusual word that causes the trouble. Even lazy students can be expected to look up 'incarnadine' and 'multitudinous' if threatened with quizzes. The real danger lies with relatively simple words that are known in one—but the wrong—definition. Not only doesn't the student understand the word, but far worse, he doesn't even *know* that he doesn't understand it. And the astonishment and disbelief in his eyes when you tell him that words *often* have more than one meaning. Here are a few rather obvious instances that have troubled my students:

I only hear

Its melancholy, long, withdrawing roar,
Retreating, to the breath
Of the night wind, down the vast edges drear
And naked *shingles* of the world. (small beach stones)

From this descent

Celestial *virtues* rising will appear
More glorious than from no fall. (angelic host)

...leaving the tumultuous throng,

To cut across the *reflex* of a star
That fled, and flying still before me, gleamed
Upon the glassy plain... (reflection)

LINGUISTICS AND TEACHING INTRODUCTORY LITERATURE 5

Love's not Time's fool, though rosy lips and cheeks
Within his bending sickle's *compass* come. (range)

I sigh the lack of many a thing I sought
And with old woes new wail my *dear* time's waste. (precious)

Becoming *aware* of a lexical difficulty is far more than half the battle, for it is precisely the skill of recognition that students lack so desperately. And it is obviously the teacher's affair, for even the most heavily glossed text-book will not help students whose real problem is that they refuse to admit that they do not 'know' rather simple words. The teacher must demonstrate with semantic exercises the perniciousness of taking the first meaning that comes to mind if his students are ever to become competent and self-dependent readers. Those students who have successfully studied foreign languages will be the first to believe him; anyone who has had to look up *facio* or *affaire* or *Bestimmung* a dozen times for a dozen different contexts will readily accept the principle of semantic diversity in English. It is the monolithic monolingual who will be hardest to convince, just as he is the hardest to teach to write decent compositions. This is basically a problem in sensitizing students to a higher degree of semantic awareness than they have ever known, and they may offer fierce resistance. The whole drift of their lives and the culture which nurtured them may go against recognizing the possibility of finely wrought discrimination of meaning. But it is a vital job of pedagogy and worthy of more scientific interest among linguists than it has so far aroused.

II. Form-class identification. Separate from the lexical problem (which is self-evident and a little removed from my major concerns) is the difficulty the beginner frequently encounters in identifying a word's part-of-speech. Students are accustomed to taking the path of least resistance: they only know how to identify a word's structure in terms of its most *frequent* assignment, and are reluctant to analyze the specific syntactic demands which the environment makes upon it. For example:

The Sea of Faith
Was once, too, at the full, and *round* earth's shore
Lay like the folds of a bright girdle furled.

I have had all eighteen students in a class of eighteen tell me that 'round' is an adjective modifying 'shore'. The reason is

obviously quantitative: 'round' occurs far more frequently in their idiolects as an adjective than as a preposition, and its occurrence immediately before 'earth' seems to have utterly incapacitated these readers from making any other form-class identification. ('Full', too, is easier for them to take as an adjective modifying 'earth' than as a nominal, the axis of 'at the...'.)

But we are more competent to handle this problem than the lexical problem, for we have the signals to help us. Rather than tell the student that 'round' should be taken as a preposition, we can make him hear his mistake. After convincing him that his reading is meaningless ('What then is the subject of "lay" ?'), we contrast his superfixes with our own.

His: The Sea of Faith²
 Was once, too |² at the ³full and rōund eārth's shōre²
 Lay like the folds of a bright girdle furled.

Ours: The Sea of Faith
 Was once, too |² at the ³full^{1#} ²and rōund eārth's
³shōre² |
 Lay like the folds of a bright girdle furled.

The insertion of #between 'full' and 'round' and the substitution of tertiary for secondary on 'round' will be enough for three out of four students, simply because the signals are stronger than any abstract grammatical explanation could be. (And, of course, if Smith's new syntactic views are correct, the phonological is the grammatical explanation.) The less astute fourth student will not understand the difference, but for non-linguistic reasons; either because he has never heard the expression 'at the full' before, or 'round' used as a preposition, but not because he is unprepared to interpret the comma as # and the tertiary on 'round' as the signal of a preposition.

Another example:

Me though just right, and the fixed laws of heaven,
 Did first create your leader, next, free choice...

1. I use the Trager-Smith notation (*Outline of English Structure*, Norman: 1951) for stress, pitch and juncture. Pitch: levels 1, 2, 3, 4 (4 is highest); stress: / = primary, \wedge = secondary, \ = tertiary, no mark = weak; junctures; # = falling and fading, || = rising, | = sustenation. I do not mark plus-juncture.

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Most students take 'just right' to modify "me", thus tertiary on 'just' (and in some idiolects /jɪst/ instead of jəst/), and secondary on 'right':

³Mē though jūst rīght²

But if forced to imitate another reading, many grasp the structure immediately:

³Mē¹|²though³jūst rīght²| and the³fixed lāws of heāven²
('Although righteousness and heaven's laws first created me your leader...')

Here are some other lines from the same passage:

from this descent
Celestial virtues rising will appear
More glorious than from no fall.

Several students, after learning that 'virtues' refers to the fallen host, took 'celestial virtues' as a vocative, and 'rising' as a gerund, rather than as a post-positional participial modifier (with 'from this descent' as adverbial object):

²from this dēscēnt³|
²Celēstial vir³tues||³rīsing¹|²will appēar
³Mōre¹|²than from³ nō fāll¹|

(And trust themselves to fear no second fate.)

('From this descent, O ye virtues, your rising will appear more glorious than from no fall.') But this reading is only superficially possible, for 'trust', then, has no subject. We ask them to imitate the following:

from³this dēscēnt²|
²Ce³lēstial vir³tues||³rīsing²|²will ap³pear³|
³Mōre²|²than from³ nō fāll²|

('Celestial virtues, rising from this descent, will appear more glorious than from no fall and will trust themselves to fear no second fate.')

A final example; one student, reading it this way

O bright-eyed Hope,²my³mōrbid fāncy chēer¹ #

wondered how Hope could be at the same time 'bright-eyed', 'fancy', and 'morbid'. Her embarrassment knew no bounds when she heard the following reading and immediately saw her error:

O bright-eyed Hope, my ²morbid ³fancy ^{1|1} cheer ^{1#}
('O hope, please cheer up my morbid fancy'.)

III. Word Order. Word order is so vital in Modern English structure that inversions² offer perhaps the most difficult syntactic adjustment that a student has to make. What he needs is basically a re-education in signalling potential. There is no use saying that this comes with reading experience, because all too often even graduate students appear unable to parse locutions like Johnson's

Behold surrounding kings their pow'r combine,
And one capitulate and one resign;

Or Milton's to consult how we may best
With what may be devis'd of honours new
Receive him coming to receive from us
Knee-tribute yet unpaid, prostration vile,
Too much to one, but double how endur'd
To one and to his image now proclaim'd?

Since inversions are easily analyzed and catalogued,³ it is strange that no one has ever compiled a primer or drill-book to develop among novice readers the essential skill of interpreting them. It would seem that the very act of going through several examples of the same type would prove eminently useful as 'pattern practice'. An example is the difficult inversion of Object-Imperative (for Imperative-Object), which the tremendous pressures of the *usual* meaning of the NV pattern often lead students to interpret as Subject-Predicate, particularly where signals of potential subject-predicate agreement are lacking: 'Then, pilgrim, turn; thy cares forego' or 'Here subterranean works and cities see,' or 'Round my true heart thine arms entwine.' The student must be taught to search for *other* clues than he could normally count on; for example, in the Object-Imperative pattern, he could use previous straight-

2. I use the term in the broad sense to mean any order of words not usual in normal spoken English.

3. The job has been done excellently by Mats Redin, *Word Order in English Verse From Pope to Sassoon* (Uppsala: Universitets Arsskrift, II, 1925), from whom most of my examples are taken. I am grateful to Professor Josephine Miles for calling this study to my attention.

forward imperatives as a hint ('turn', in '...turn; they cares forego'), or quasi-imperative adverbials ('here...'). The important thing, however, as in all pattern practice, would be to set the model and then to fill it with numerous confirmatory examples.

Here are some of the kinds of poetic inversions that cause students trouble:

SOV Bright Thames the brightest beauties yield
 Prep SOV With hairy springes we the birds betray
 OSV What though no credit doubting wits may give
 OVS Among the Shepherd-grooms no mate/ Hath he
 SAuxOV Gums and pomatum shall his flight restrain
 SprepV Not fierce Othello in so loud a strain
 Roared for the handkerchief that caused his pain
 SVprepO The God who darts around the world his rays
 OConjSV But fortune's gifts if each alike possessed
 AdvSV Unless aside thy purple had been thrown
 AdvPrepVS Swift on his sooty pinions flits the gnome
 SAuxPrepV There all the Learn'd shall at the labour
 stand
 PrepImp Hope humbly then; with trembling pinion soar
 PrepP A vile conceit in pompous words expressed
 PrepInf What moved my mind with youthful lords to
 roam
 SPredNV Some figures monstrous and mis-shaped ap-
 pear.
 For I thy own dear mother am.
 ObjCompOSV Modes of Self-love the passions we may
 call
 PrepN O thou! Of Bu'ness the directing Soul.
 NAdj Not tyrants fierce that unrepenting die
 AxisPrep She talked and sung the words among.
 I went my work about.⁴

The teacher has no business assuming that his beginning students have either the initiative or the ability to learn how to interpret poetic inversions on their own. What they need is the same kind of intensive drill that has proven so effective in foreign

4. S = subject, O = object, V = verb, Prep = prepositional phrase, Conj. = conjunction, Adv = adverb, P = participle, Inf = infinitive, Pred N = Predicate noun.

language instruction--drill within the pattern, in this case with instances drawn from all periods of English poetry. The alternative is a continuing incapacity to handle any other structure than SVO or its standard variations -- in short, incompetence as a reader of poetry.

It would be fatuous to suggest that all the problems of teaching introductory literature can be solved by linguistics, for the obvious reason that literature can never be defined in terms of language alone. Obviously our methods do nothing to develop the vital poetic prerequisites of emotional maturity, esthetic sensitivity, and general culture. Yet, as important as these qualities are, they do not even *become* problems until the student has been successful in piecing together the plain syntactic sense of a poem. Let us not evade our linguistic responsibilities. Let us try to solve linguistic problems with linguistic methods, and let the other things take care of themselves.

MOTIVATION IN SECOND LANGUAGE LEARNING

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Almost every one who has had any long experience in the teaching of foreign languages arrives at the conclusion that, despite the recognized importance of such factors as intelligence, auditory memory, analytical ability, and skill in mimicry, motivation is the one most important factor involved in a person's learning of a foreign language. A keen desire to learn is fundamental to any real measure of success.

However, even as in our earlier treatments of "language aptitudes," there is still a great deal of confusion about motivation. Psychologists have demonstrated quite effectively that the so-called "language aptitude" is not a single psychological trait or capacity, but can only be properly understood as a constellation of various intellectual and perceptual faculties. In the meantime, however, we have continued for the most part to speak of motivation as though it were some one kind of attitude which a person either had or did not have. The label of motivation has actually served as a kind of catchword for a number of quite distinct motivations, e.g., the desire to get a good grade, the necessity of passing certain qualifying exams, curiosity about the outside (i.e., foreign) world, and a means of getting a job.

We must not, therefore, speak of motivation as simply a desire to learn a foreign language. It must rather be discussed in terms of an interest in learning so much of a language and for specific purposes. This means that as long as we deal with motivation as some more or less undifferentiated desire we are left with two problems to which we cannot obtain ready answers: (1) the person who suddenly loses interest, despite apparent high motivation, and (2) the person who never ceases to "murder a language," speaking with horrible pronunciation and inexcusably poor grammar.

In view of the complexity of motivation and the apparent capricious and unpredictable nature of students' behavior with

regard to language, can we, nevertheless, extract certain types of motivation as being long-lasting and resulting in adequate mastery? For those who must screen personnel for foreign assignments this is obviously the \$64,000 question. I do not presume to have the full answer to this problem, but my own experience has suggested that there are two fundamental types of motivation which when present to any considerable degree tend to guarantee a high measure of success in language learning. I shall personally be very much interested in having any confirmatory or contradictory evidence from others, and, as I shall point out below, I trust that some systematic study may be made of these types of motivation so that we may acquire a sufficient body of data to be able to make certain prognostications with a higher degree of reliability than is possible at present.

Desire to Communicate

In all the welter of different types of motivation in the learning of foreign languages, the desire to communicate seems to be the most basic. It has often been said that if people had only to learn to speak a foreign language in order to eat, the problems of motivation would be solved. On the other hand, fulfilling elementary needs may result in a level of communication in which a person never acquires more than a very elementary vocabulary and the least complex arrangement of words. A real desire to communicate means much more, for it involves an interest in an exchange of significant impressions, ideas, and concerns about a wide range of subjects.

Some people have mistakenly equated talkativeness with the motivation to communicate. To a certain extent there is no doubt a significant correlation. However, there are many talkative people who seem to have no special motivation to communicate. They are primarily exhibitionists and often engage in talking as a means of hiding an inferiority complex. It has been frequently observed that some people who are excessively talkative in their mother tongue become extremely retiring and quiet in a foreign language context. So often a strong urge to talk in one's mother tongue does not carry over to the foreign language.

One of the fundamental errors in equating talkativeness with an urge to communicate is the failure to distinguish between the two related functions of communication: sending and receiving. Furthermore, what makes our problem more acute

is the persistent tendency to think of sending as being the primary factor in communication. In a certain sense this is true, but if the desire to communicate is to be a sufficient motivation for mastering a language, it must be a composite urge both "to receive" and "to send." As between the two functions of communicating, receiving is functionally primary in language learning, even as it is in any vital communication. The person who has an insatiable desire to "receive" will almost always feel compelled to "send." Moreover, what is sent is likely to be significant. The reverse is not, however, true. Those whose attention is concentrated in the sending function are likely to be badly maladjusted and, for various reasons, not likely to succeed too well in the learning of a foreign language.

The ideal motivation to communicate should be a healthy blend of urges to send and to receive, for not only is the combination most likely to result in a person's pursuing his interests to a point of relative mastery, but it is most propitious for acquiring a control which will exhibit not only quantity (i.e., size of vocabulary) but also quality (i.e., good pronunciation, correct grammatical forms, and idiomatic use of figures of speech).

Some people have mistakenly confused the motivation to communicate with the so-called extrovert personality. Such terms as extrovert and introvert are in themselves misleading, because they imply too simple a classification of types. But be that as it may, we cannot afford to assume that a person who exhibits predominantly those characteristics generally regarded as typical of extroverts will necessarily be prompted by any great urge to learn a foreign language, even though he finds himself in a foreign language area. What is more, he may not even exhibit such characteristics once he is outside the cultural context to which he is accustomed. Not infrequently the out-going personality who is "the life of the party" at home becomes a retiring, hesitant person abroad. Moreover, the "timid soul" who seems entirely wrapped up within the orbit of his own personality may become a "roaring lion" in a foreign society. That is to say, traits which we classify as introvert and extrovert are too often related to modes of behavior within a particular cultural (and hence usually linguistic) context. Furthermore, a person who appears to be entirely introverted may, as the result of some special incentive (particularly under deep religious or emotional stimulus)

become a crusader for some cause requiring extensive and intensive communication. Accordingly, we cannot assume that the urge to communicate is merely some manifestation of an extrovert personality, nor that the extrovert will be communicative in a foreign language situation. The problems are far more complex than the ordinary formulation of the situation.

Sensitivity to the Out-Group

Despite the recognized importance of a desire to communicate, it is not enough, however, to depend solely upon this one factor in motivation, for those who have been apparently strongly activated by such an urge have not infrequently failed to learn a foreign language adequately. The trouble seems to lie in the fact that they have not been sufficiently sensitive to the out-group.

Not infrequently one meets people who have lived in a foreign country for years and who have acquired an appreciable vocabulary (both auditory and oral), but who nevertheless "butcher the language." One woman of my acquaintance who lived for many years in Mexico was deeply interested in people. Accordingly, she enjoyed an intensive and extensive communication (both receiving and sending), but despite her continued use of Spanish, she spoke it with almost total disregard for the grammar. The verbs were almost all infinitives, irrespective of time of action or person of the subject. Genders were mixed in an incredible fashion. In fact, I often wondered how it was possible for anyone to continue to speak a language in this manner. One would certainly have thought that sensitivity to what other people thought of her would have led to some improvement. What makes the case even more interesting is the fact that the woman was obviously very sensitive to criticism from others. This sensitivity, however, was related only to the in-group. That is to say, this woman was very sensitive as to what Americans might say or think about her, but she was almost completely impervious as to how Mexican people might react to her behavior, whether social or linguistic.

Instances of sensitivity to the in-group combined with lack of sensitivity to the out-group are certainly not infrequent. In fact, it would appear that the greater the sensitivity to the in-group the greater the lack of such an attitude toward the out-group. This is not particularly strange, however, for the more one identifies himself with the in-group the less he is likely to

be concerned about the reactions of people in the out-group. This may help to explain these apparently curious instances in which people who may be very pedantic in the use of their mother tongue are seemingly quite calloused as to mistakes which they make in a foreign language.

There is another curious phase of this in-group *vs.* out-group "competition." For example, it is quite common for a nonconformist in the in-group to be very sensitive (and hence a conformist) as far as the out-group is concerned. This would appear to imply a contradictory factor in one's personality, but there is in fact no contradiction whatsoever. For a person to be a nonconformist within one's own culture but a conformist in contacts with those of other cultures is to behave according to the fundamental cultural pattern. Since it is a part of the in-group pattern to conform to the in-group and to be relatively unaffected by social pressures from the out-group, the nonconformist within the in-group often reverses this tendency and hence reflects proportionately greater concern for the out-group reactions than for those of the in-group. This does not mean that all those who are nonconformists within their own society will be conformists as far as out-group responses are concerned, but it does mean that apparent exceptions to the nonconformist characteristics do have a culturally valid explanation.

For the most part, past studies of problems in language learning have dealt almost exclusively with the so-called psychological factors. However, as we have attempted to indicate, the most important factors with which we must reckon, namely, desire to communicate and sensitivity to the out-group, are largely cultural, rather than purely psychological. I would not wish to imply that individual psychological characteristics are not significant in these two prerequisites for the successful learning of foreign languages. But I would suggest that in the development of these basic qualifications cultural factors are every bit as important as psychological ones, if not more so.

Up to the present time our judgments concerning motivation to communicate and sensitivity to the out-group rest entirely on impressions accumulated at random. We should develop, if at all possible, some more objective means of testing such hypotheses and of providing data for prognosticating the degree of success which particular students are likely to exhibit. It would seem that certain types of tests could be constructed along lines of Thematic Appreciation Tests. These

should be able to reveal significant facts about a desire for two-way communication, as well as some information about sensitivity to the out-group. Certain psychoanalytical tests might also supplement the TAT data and give some corroborative evidence. It is my sincere hope that some linguistically oriented psychologists may undertake to explore the field and to provide us with the much-needed observations and interpretations.

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M

THE PHONEME IN BILINGUAL DESCRIPTION¹

Einar Haugen
University of Wisconsin

1. The subject matter of this paper will not be the effects of bilingualism on language, but rather its effects on linguistics. It will be my thesis that the phenomena observed in language contact require us to introduce what I shall metaphorically describe as a third dimension in linguistic description. It has been characteristic of most statements of linguistic structure that they are limited to a cross-section of one particular dialect or even idiolect. Harris formulates the limitation when he writes that "the universe of discourse for a descriptive linguistic investigation is a single language or dialect."² In his recent manual of phonology, Hockett similarly excludes "variations of phonological pattern from individual to individual, or from group to group, within a speech community..."³ While this limitation of the field of inquiry is understandable, it fails to do justice to the phenomena of interdialectal and interlinguistic contact which are an important part of linguistic behavior. These are most obvious in the case of bilinguals, but I believe that bilingualism is only a special case of the wider concept of coexistent linguistic systems, which can be applied not only to the contact of different languages, but also of different dialects. In any case the distinction between idiolect, dialect, and language is one of degree rather than of kind, and no one has yet established a purely linguistic criterion which permits us to distinguish sharply between dialect and language. Even in our relatively homogeneous English-speaking community in the United States we are constantly exposed to different structures from our own, and linguistic theory which does not adequately take account of the interrelationship of coexistent linguistic structures is still incomplete. Fortunately important contributions to the theory of language

1. This paper was read at the General Phonetics section of the MLA, December 27, 1955.

2. Harris, *Methods in Structural Linguistics* (Chicago, 1951), p. 9.

3. Hockett, *Manual of Phonology* (Baltimore, 1955), p. 1.

contact have recently been made by Weinreich; a new field of bilingual description, or dialinguistics, is thereby opened up.⁴

2. Since the phoneme is one of the central terms in the development of structural linguistics, it should be of special interest to see whether we can speak of phonemes when we are dealing with more than one structure at a time. As usually defined, the phoneme has meaning only in terms of a single structure. I believe it would make sense to say that the phoneme is normally defined in two dimensions, which might be described as the allophonic and the phonetic. A phoneme is, on the one hand, the sum of its allophones, a linear relationship which can be stated, for example, for the English phoneme /p/ as /p/ = initial [p̪] + [p] after /s/ + medial [p̪] + final [p]. Each allophone is defined in terms of its position in relation to the allophones of other phonemes, and it is assumed that its difference from the other allophones is correlated to its specific environment. What is ordinarily called the free variants of a phoneme are of a different order, or in my present terminology, in a different dimension. Each allophone varies in its phonetic characteristics around a purely statistical norm, correlated not to the phonetic environment, but to the individual speaker and the limits of toleration imposed by the social group. But these definitions of the phoneme in terms of its two factors, the allophones and the free variants, which we might call variphones to have a term that is parallel to allophones, leaves entirely out of account the phenomena of interlinguistic communication. Can the term phoneme be salvaged for use in this larger context? I believe it can, but only by adding a third dimension to its definition. We need, in other words, a third category of phonemic variants, beyond the allophone and the variphone. In previous papers I have tentatively labelled this the diaphone.⁵ The new idea in this paper is to regard the diaphone as a phonemic variant, definable for each situation of interdialectal or interlinguistic contact. Speakers who hear systems unlike their own and learn all or part of these will tend to establish identifications which result in making the phonemes of the other system members of their own, but with a status that is different from that of either the allophone or the variphone.

4. Uriel Weinreich, *Languages in Contact* (New York, 1953).

5. See the papers both entitled "Problems of Bilingual Description" in Georgetown University Monograph Series on Languages and Linguistics 7.9-19 (1954) and in General Linguistics 1.1-9 (1955).

3. Let me illustrate by a little experiment which I undertook in order to test the relationship between two dialects of American English which have clearly different structures. I asked a speaker from New England, whose speech had often struck me as markedly different from my own Midwestern, to record a list of 22 words, chosen to illustrate his distinctions in the low and mid range. He read the list twice, and the tape was then played to two classes of college students, all of them with General American backgrounds. They were told only that this was a kind of English and that they were to write down which word they thought they heard. The number of subjects was only 25, which is of course not enough for statistical validity, but the results suggest what might be found if further experiments were undertaken. In one case there was complete coincidence between the dialects: every subject perceived correctly the words containing the phoneme /æ/: *cat, pat, hat*. Before /r/, however, the situation was quite different. The familiar triad of *merry, Mary, and marry* was included, plus the pairs *ferry* and *fairy*, *very* and *vary*. The speaker clearly distinguished all of these, pronouncing what might be described as [ɛ], [ɛ ə], and [æ], phonemically /e/, /ey/, and /æ/. But as might be expected, the answers were almost wholly random; the correct answers amounted to 52.6 per cent, which is little better than chance. The percentage would have been still lower but for the word *very*, which all but one identified correctly; but 16 of 25 also identified *vary* as *very*, showing that *very* probably was favored because of its greater frequency. The following table gives the detailed figures for each identification (the "correct" answers are italicized):

Spoken		Written				Spoken		Written		
		<i>merry</i>	<i>Mary</i>	<i>marry</i>	<i>Other</i>			<i>ferry</i>	<i>fairy</i>	<i>Other</i>
<i>merry</i>	10	3	10	2		<i>ferry</i>	9	11	4	
<i>Mary</i>	8	12	5			<i>fairy</i>	2	15	8	
<i>marry</i>	2	6	17							
Spoken										
						<i>very</i>	<i>vary</i>	<i>Other</i>		
				<i>very</i>		24	0	1		
				<i>vary</i>		16	5	4		

These results merely confirm the well-known fact that Midwest speakers have a single phoneme before /r/ in the range where New England speakers have three. While one of these is phonetically most similar to the Midwest vowel, viz. the /e/ of *very*, it would be dangerous to identify them uniquely in view of the difficulty encountered by listeners with *merry* and *ferry*. The relationship is between one phoneme in one structure and three in another, and we can say that all three of the New England phonemes are bidialectal variants of one Midwestern phoneme, at least to the Midwestern speaker. Another way of saying this is to call them diaphones of Midwestern /e/ before /r/. But while the relation of /æ/ and /e/ and /ey/ in other positions is a simple one-to-one relation, before /r/ there is a three-to-one relation. I have suggested the term "diaphonic" for these relations, and if one calls the variants which are not part of one's own system, but of the other system one hears, *diaphones*, we have a name that stands beside *allophone* and *variphone* as the unit of the third dimension I have here been describing.

4. Of course the relations are not always as simple as the ones I have been describing so far. Phonemes or phoneme sequences in one language may very well overlap with those of another. This is the case with the vocalic phonemes of *hot*, *pot*, *cot* and *heart*, *part*, *cart* when New England and General American are compared. I remind you that all the subjects identified *hat*, *pat* *cat* correctly; but only 30 per cent identified *hot*, *pot*, *cot*, and 52 per cent *heart*, *part*, *cart*. The following table gives the details:

Spoken		Written				Spoken		Written			
		o	ar	u	au	a		o	ar	i	a
cot ¹	6	12	4	2	1		cart	7	16	1	1
cot ²	10	9	4	2			heart ¹	2	10	8	4
hot	8	16			1		heart ²	3	16	6	
pot	6	17			1		part	5	10	6	3
Totals	30	54	8	5	2	99		17	52	23	8 100

The New England sounds are clearly differentiated into a low back short round vowel [o] and a low front long unround

vowel [a:], phonemically /a/ and /ah/. Orthographically and historically these correspond in Midwest English respectively to a low mid long unround vowel [ɑ:] and a similar slightly back vowel with retraction [æ:r]. But without a context to tell him which word is meant, the Midwest speaker is at a loss. The back [ɒ] of New England suggests the beginning of his own [ɑr]; so half the time he thinks he is hearing an [r] where there is none. On the other hand, the length of the New England [a:] he has learned to associate with his own [r] also, and so he identifies this too with [r] the other half of the time. But he often hears the fronting of the New England [a:] as the beginning of his own diphthong [aɪ], or even occasionally as his own phoneme [æ], I confess to having heard the NE /ah/ as /æ/ myself years ago when I first heard it, thinking that *part* and *pat* had been confused. We may sum up the situation by saying that Midwest /a/ has both New England /a/ and /ah/ as its diaphones, but that the latter also correspond to his /ar/, resulting in confusion of the simple phonemes with the sequences.

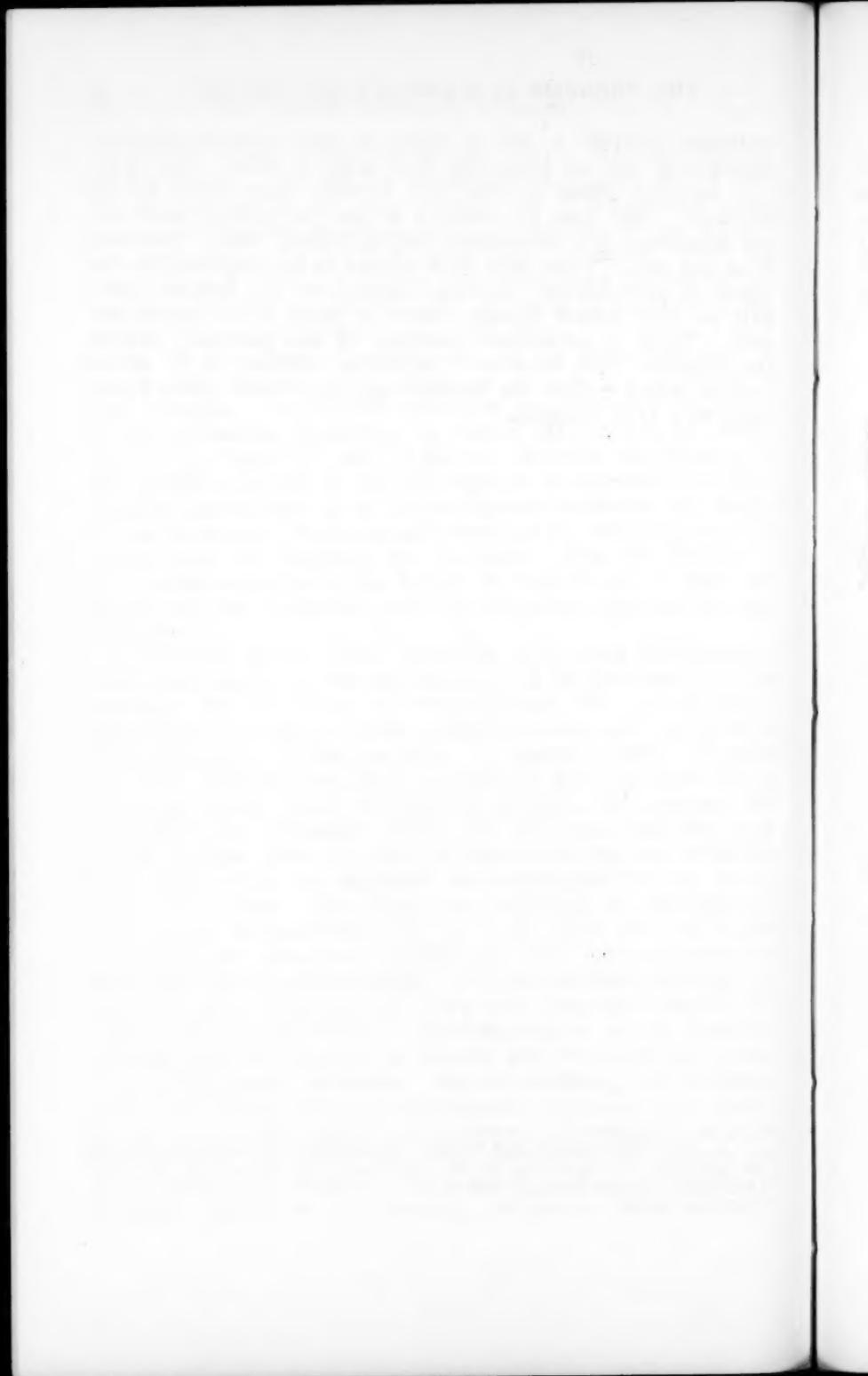
5. In the preceding account I have outlined three different relationships which can arise when two structures are in contact: a one-to-one, a one-to-several, and a several-to-several relationship between phonemes. In previous papers I have called these *simple*, *compound*, and *complex* diaphones. It should be clear that the same situation arises when the systems are so different that we have to call them languages. The student who learns a foreign language, as is well known, hears its phonemes filtered through his own. His ears will not report truly to him, nor his speech organs reproduce correctly the foreign phonemes. While German /p/ may strike him as familiar and be identified with his own /p/, the German /u/ and /i/ will both be identified with his own /i/. Only careful teaching, supplemented by constant practice and the correction of natives, will separate the diaphones and turn them into phonemes in his reproduction of the new language. In extreme cases we can speak of two languages with but a single phonological system among such learners. One such case which I have studied is that of a speaker of Norwegian and English who learned the latter language as an adult immigrant and now speaks both languages fluently. As far as I can hear from the records I have made of his speech in both languages, he speaks a fluent and quite comprehensible English without having learned a single new phoneme. What is

sometimes called sound substitution has in his case reached its extremity. For the 24 consonants of English he has substituted his native 18, which means that 6 distinctions made by native English speakers are non-existent in his dialect. The phonemes /w z ʒ ʃ ð θ/ have been coalesced with his native /v s ʃ j d t/, which he also substitutes for the corresponding English consonants. He is unable to distinguish between *thinker* and *tinker*, *weep* and *veep*, *there* and *dare*. These identifications are productive, in the sense that when he learns new English words, they are reproduced according to this formula. The English phonemes are therefore diaphones of his Norwegian phonemes, in such a fashion that he reproduces e.g. both *thin* and *tin* as *tin*. Another consequence of this situation is that in his Norwegian it is impossible to distinguish assimilated from unassimilated loanwords by phonological criteria. Phonologically there is no switching when he passes from one language into the other. That his English is still comprehensible is due largely to context and to what one might call the "common core" of Norwegian and English phonologies.

6. While much more could be said about this theme, I shall only suggest a few conclusions. If the phoneme is to be salvaged for the study of interdialectal and interlinguistic phenomena, it must be given a third dimension in the form of dialinguistically defined variants. Although I have proposed the term diaphone for such variants, I hold no brief for the term and would gladly accept another that will express the concept. The difference from the alphones and the variphones is that these can only be established for one structure at a time, while the diaphones are established for two structures at a time. The diaphones obtaining for English and Thai would obviously be different from those for English and Norwegian and both would be different from those obtaining for American and British English. A given English phoneme can have as many diaphones as there are languages which can come into contact with it. The importance of the diaphonic relation will be apparent to anyone who considers the problems of linguistic borrowing, language learning, and bilingualism. All forms of oral interlinguistic influence are transmitted by way of diaphonic equivalents. Experiments like the one reported on above, but using more precise methods and more substantial numbers, could throw light on problems of language perception and language structure. Most language

textbooks provide a set of more or less accurate diaphonic equivalents for the phonemes they wish to teach. But in actual learning, these provide only a very weak crutch for the beginner. Our goal as teachers is that the learner shall turn the diaphones into phonemes, distinguishing them precisely from his own. When they have ceased to be diaphones, we can speak of two distinct systems, instead of the system and a half or even single system which so many of our pupils employ. From a subordinate member of one phonemic system, the diaphone thus becomes a principal member of a second system which makes the speaker approach more nearly to our ideal of a true bilingual.⁶

6. For bibliography and further discussion of related problems see the author's *Bilingualism in the Americas; A Guide to Research* (American Dialect Society, 1957).



A SUGGESTION FOR TEACHING THE SPANISH TUTEO

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The problem of how to approach the teaching of the varied Spanish equivalents of our second person address form, *you*, has disturbed English-speaking students of Spanish and their teachers ever since our language lost the contrast in everyday usage between *thou*, the intimate and familiar form of address, and *you*, the polite and respectful form. Centuries ago our linguistic ancestors had in their own language patterns a convenient bridge over which they could pass to an understanding of the Spanish contrast between *tu*, intimate and familiar, and *usted*, polite and respectful. The gulf that separates our contemporary usage from the *usted/tu* usage in Spanish seems less serious in the case of *usted* than in the case of *tu*, the stranger of the two forms. As generally happens in other cases where two contrasting forms in Spanish are equivalent to a single English form, e.g.: *por/para* and *ser/estar*, the stranger and, as here expressed, the second of the two forms tends to be over-used by students. In view of this experience noted by many Spanish teachers the most satisfactory approach to this "two-for-one" type problem would appear to be one based on a careful analysis of the more troublesome or stranger member of the individual contrasting pairs, *para*, *estar*, and *tu*.

The use of *tu* and its galaxy or set of attendant forms (subject, object and possessive pronouns, finite verb forms, possessive adjectives, etc.), all of which correspond to a behavior pattern of classifying and modifying speech usage in contacts with other human beings, is called the *tuteo* in Spanish. The presentation of this feature to English speakers has been accomplished - or avoided - in a variety of linguistically unsound ways. The purpose of this study is to summarize and criticize the commonly used approaches to the problem of teaching the Spanish *tuteo* and to offer suggestions for an improved approach.

My personal experience as a student of Spanish is, perhaps, a convenient way to illustrate certain aspects of the problem under discussion. One of my early teachers had what I am sure she considered a neat solution for the problem of the *tuteo*. In her instruction she eliminated all the second person forms and stated unequivocally that none of us would ever get to know any Spanish-speaking individual well enough to make use of these forms, so, therefore, we did not need to bother our youthful heads about them. When she further stated that these forms were like our *thee* and *thou*, which we only heard when we went to church and only used when we said our prayers or recited poetry, we were convinced of the praiseworthy practicality of her solution. Within the year, however, many of us began to have our doubts about the value of this solution when we struck up friendships with Spanish-speaking fellow students who insisted on using these strange forms we had never learned. Unlike most of my classmates, I went on with my study of Spanish and, for a long time, my fumbling hesitancy in the use of the *tuteo* forms was, at least in part, due to my early experience with an inadequate presentation of this important feature of Spanish. Continued contacts with Spanish-speaking people in this country and years of residence in Spanish-speaking countries have made it clear to me that we must prepare our students adequately in the use and comprehension of the *tuteo*.

Not all Spanish teachers have used the Gordian knot tactics of my early teacher, but, judging by the grammars some of them have published, it is possible to say that many of them have violated a basic principle in foreign language teaching that would be familiar to all linguists, namely: that a language must be presented truthfully and completely in normal functional situations. A comparative study of the approach to the *tuteo* found in a random sampling of twenty grammars used for the teaching of Spanish in American schools and colleges reveals some interesting facts. The grammars referred to are:

1. Agard, Willis and Paratore *Speaking and Writing Spanish* (Holt)
2. Barlow *Basic Oral Spanish* (Crofts)
3. Bolinger *Intensive Spanish* (Russell)
4. Cherubini *Curso práctico del español para principiantes* (Winston)

5. De Vitis *A Spanish Grammar for Beginners* (Allyn and Bacon)
6. Hamilton and Van Horne *Elementary Spanish Grammar* (Appleton-Century)
7. House and Mapes *Shorter Spanish Grammar* (Ginn)
8. Kany *Practical Spanish* (Heath)
9. Keniston *Learning Spanish* (Holt)
10. La Grone *Conversational Spanish-Revised* (Holt)
11. Leslie *Spanish for Conversation* (Ginn)
12. Levy *A Grammar of Everyday Spanish* (Dryden)
13. McSpadden *An Introduction to Spanish Usage* (Oxford)
14. Ransmeier *A Spanish Recognition Grammar* (Chicago)
15. Rogers *Spanish for the First Year* (Macmillan)
16. Sacks *Spanish for Beginners* (Ronald)
17. Trevino *Spoken Spanish* (Heath)
18. Turk *Foundation Course in Spanish* (Heath)
19. Wagner *Spanish Grammar* (Wahr)
20. Walsh *A Brief Introduction to Spanish* (Norton)

The following statements summarize the chief artificial or misleading approaches that appear in the grammars as indicated by the numbers assigned in the previous list:

- I. The presentation of the *tuteo* forms and usage occurs early, i.e. within the first quarter of the text and course, and the forms are a part of the student's memory work yet no natural occurrence or usage situation in the form of dialogue appears until the late lessons, or, in some cases, no such situation ever occurs. Almost without exception these grammars have good dialogue situations where *tuteo* forms could be used but where a somewhat artificial *usted* continually appears.

Grammars: 2, 4, 7, 8, 11, 12, 14, 15, 16, 18, 19

II. The presentation of the *tuteo* forms and usage is postponed until after one half or more of the course has been completed.

Grammars: 9, 17

III. The *tuteo* forms are downgraded in importance by being enclosed in parentheses or by being presented in smaller type than the other verb forms or certain *tuteo* forms are relegated to an appendix.

Grammars: 3, 10, 11

IV. The *tuteo* forms are translated or equated with *thou* and *ye* without any explanation of the present-day inadequacy of these equivalents.

Grammars: 5, 11

V. Spanish American usage is not described. The peninsular Spanish form, *vosotros*, is not used in Latin America except in sermons. In great areas of Spanish America *vos* is the intimate form used instead of *tú*. Sporadic usage of *su merced* has been attested in widely separated American regions. While *vos* and *su merced* are regionally and socially restricted forms and should not be presented in a grammar except, perhaps, as a footnote, indications as to the absence of *vosotros* in Spanish American usage should be included.

Grammars: 5, 6

VI. *Tuteo* usage is compared to the French use of *tu* and the German *du* and *ihr*. This is a risky procedure because a teacher might be trying to explain one unknown by referring to another unknown.¹ The only grammar that employed this approach was used in a period when it was not uncommon for a Spanish student to have had instruction in French and German prior to studying Spanish. This is rare today.

Grammar: 19

The unfavorable characterizations listed above suggest immediately their opposites or the guiding principles for what

1. It is furthermore risky since the usage patterns of French *vous/tu* and German *Sie/du* could vary considerably from the Spanish *usted/tu*. In other words the similarity could be only superficial.

I consider a realistic and satisfactory approach to presenting the *tuteo*:

- I. *Tuteo* usage and forms should be presented and used early in keeping with their true frequency of occurrence in the Spanish language. This means not only must the student become acquainted with these forms in the first quarter of his text or course but that he must immediately hear them, read them, and put them to use in their natural situations. On no occasion should the forms be downgraded through typographical or editorial devices.

Grammars with satisfactory presentation: 6, 13, 20. 1 is especially praiseworthy.

- II. If *thou* and *ye* are used as equivalents of *tú* and *vosotros* the students must be made aware of how inadequate these forms are as translations of the Spanish. For Latin America, however, given the limited occurrence of *vosotros*, *ye* is an excellent equivalent at the present time. The use of archaic English forms must be accompanied with historical statements about English usage.

Grammars with satisfactory presentation: 7, 9, 13. 3 is outstanding.

- III. An explanation of Spanish American variations on peninsular Spanish usage should be given, above all in the case of *vosotros*.

Grammars with satisfactory presentation: 1, 8, 12, 13, 17. 3 is outstanding.

These three principles, though important, do not include one aspect of the teaching of the *tuteo* that every foreign language teacher knows is important. I refer to a relatively quick "feeling for" foreign language usage, well expressed in the widely known German term, *Sprachgefühl*. Once our students have attained this desirable quality our tasks are immeasurably lighter. This, in my opinion, can best be given to our students by comparing the *tuteo* usage in Spanish with our use of first names in English. Two grammars consulted (6 and 13) refer to the similarity of our first name practices and the Spanish *tuteo*. The second of the two grammars actually makes the presence of a first name in a drill sentence an arbitrary indicator that the *tu* form is required in the

Spanish translation. These praiseworthy steps are in the right direction and deserve encouragement. The comparative study contained in the remaining paragraphs of this paper seeks to give such encouragement by providing a solid basis for likening *tuteo* to first-naming. This study is not a linguistic comparison in the narrow sense but rather a cultural comparison.

Based on information obtained in interviews with six informants from Spain (Ciudad Real), Argentina (Buenos Aires),² New Mexico (Taos), Venezuela (Caracas), Colombia (Bogotá), and Perú (Lima), it is possible to establish the norms for *tuteo* usage given below. Comparative statements for first-naming are based on my own experience, i. e. a single informant, a mid-western speaker of English from Cleveland, Ohio.

The *tuteo* is used as follows:

I. Family Relationships

Affection, closeness of blood ties, filial respect, and openness of character are governing factors in this area. Two distinct patterns are to be noted: one, corresponding to the traditional Spanish family, in which the children use the *usted* form in addressing their parents; and the other, representing newer patterns of family relationship, in which the children use the *tu* form with their parents. In both cases the parents use the *tu'* form with their children. The traditional type is found in New Mexico and in Venezuela and the attitude of the informants from these areas toward the innovating type (Spain, Argentina, Colombia, Perú) was in every way comparable to the attitude I would have if I heard a child call his parents by their first names. The presence and growth of the innovating pattern of using the familiar form with one's parents does not offer a parallel to English first-name usage. The traditional type of New Mexico and Venezuela is, however, directly comparable to our first-name practices in the parent-child relationships. Grandparents and grandchildren follow the same pattern of usage as that indicated for parents and children in the areas studied.

2. In the case of Argentinian usage, the widespread use of the archaic *vos* complicates somewhat this study. All references to Argentinian practice are based on the use of *usted/vos* which I call in this paper *tuteo*. I thus equate it arbitrarily with the *usted/tu* situation in the other areas studied.

Husbands and wives and sisters and brothers use the *tuteo* just as the first name is used among us. Cousins who are near contemporaries use the *tuteo*. One uses the *tú* form with aunts and uncles as a rule but here the *usted* form could be used if the person involved were considerably older and reserved in nature. First-naming would be rare in English-speaking families in this relationship. The norm is the first name accompanied by *aunt* and *uncle*, which would have to be set as a degree between the intimacy of an unaccompanied first name and the formality of a *Mr.* or *Mrs.* used with the surname.

II School Relationships

Members of the same school class use the *tuteo* with each other as we would use the first name. In some areas (Perú, Venezuela, Colombia, New Mexico, Spain) in the elementary grades the teacher is addressed with the *tú* form until the pupils have learned to use the more respectful *usted*. In Argentina the respectful form, *usted*, is used by both pupils and teachers throughout the three stages of an educational career: elementary, secondary, and university. For all areas investigated the classroom situation is marked by the *usted* form of address beyond the elementary level. Exceptions are possible: a teacher may use the *tú* form with students on the secondary and university level if he wishes to express a deeper personal interest in them than what would normally be expected. This change in the norm would be a source of great personal satisfaction to the students involved. They, however, would never use the familiar form in addressing their teachers. In the case of first-naming, English-speaking practices permit the teacher to use the first name at the elementary and secondary level, but not ordinarily at the university level where a more formal student-teacher relationship is maintained. If, at the university level, a teacher did call a student by his first name, it would be a source of great personal satisfaction for the student. In rare cases only would a student at this level address his teacher with his first name. Age difference and openness of character would be governing factors in such a case.

III *Superior- Inferior Relationships*

This area in a historical sense is probably the source for the creation of deferential forms of address. Today it is a difficult area to define because of sensitivity to the contrast involved. In some regions of the Spanish-speaking world household servants are addressed with the *tú* form (Perú) but in other places only *usted* is acceptable to the servants (Venezuela, Argentina, Colombia, Spain), and to use *tú* would mean that the employers were *nouveaux riches* and unused to having servants. Servants always use the respect forms with employers, *usted*, *mi (la señora)*, etc. American usage at the present time is hard to define because servants are not so common as they are in Spanish-speaking countries. When I was a boy and when I lived in the South before World War II servants were more common. Then the practice was to call them by their first names. At present formal forms would be used (*Mr.* or *Mrs.* with a surname) with all household employees, who would now work on an hourly basis.

Another situation contained in this category is the officer-subordinate relationship in the military services. In Spain, Colombia, Argentina, and Venezuela officers generally use the *usted* form with enlisted men although non-commissioned officers occasionally use the *tu* form with their subordinates. All enlisted personnel use highly respectful forms with officers *mi comandante, mi teniente, mi general, etc.* In Perú officers, whether commissioned or noncommissioned, use the *tú* form with enlisted men. Our practice is that officers use the title, *private*, with the surname on formal occasions but generally use the surname alone in addressing a subordinate. The surname in English, contrary to Spanish usage, implies reserve and superiority toward the person addressed. The rapidity with which we pass from the formal *Mr.* with a surname to a first name, skipping generally the surname alone, is probably due to this fact.

The last situation to be described is the master-pet relationship. In most Spanish-speaking areas the *tu* forms would be used with animals. *i Duque, échate!* ('Duke, lie down!') would be normal in Spain, Perú, Venezuela, New Mexico. However, in Colombia and

in Argentina '*Duque, échese!*' , employing the *usted* form would be usual because, as one informant put it, "there is no real affection felt for an animal." Among us an animal (horse, dog, bird, cat, cow, etc.) would fall into the first-name category in usage.

IV *Casual Relationships*

In all casual contacts the *usted* form is used in Spanish unless a great difference in age is present. In such a case the older person addresses the younger with *tú* but the younger individual will always use the formal form. Incautious use of the *tú* form in these casual relationships suggests the inferior-superior contrast described previously and would produce annoyance and even lead to trouble. Our normal practice would be to use a formal form in casual relationships (*sir, mister or ma(d)am*) and an indiscriminate use of *Bud, Mac, Charlie, or Jack*, which would be intimate forms for us, would produce a similar annoyance in the person addressed.

V *Modification of Relationship*

In both Spanish-speaking and English-speaking groups a change in the form of addressing another individual creates a comparable effect. If the change is from formal to intimate, i.e. from using *usted* to using *tú* or from using *Mr., Mrs. and Miss* with the surname to using the given name, both individuals concerned experience the pleasure of a new relationship. If the change is in the contrary direction, from the intimate address form to the formal form, both individuals experience displeasure and unhappiness. In a Spanish-speaking home if a parent addresses his child with *usted* the child knows that there is trouble ahead. Similarly when my father called me *Mr. Kiddle* instead of the usual *Lawrence*, I was immediately aware that my behavior had been unsatisfactory.

It is probable that cultural comparisons seldom present a perfect one-to-one relationship. This is certainly to be noted in the case of the Spanish *tuteo* and the English first-name situation. Further research would undoubtedly bring up additional facts about *tuteo* usage in Spanish-speaking regions but

it is questionable whether these facts would destroy the general theory concerning the similarity of these two cultural manifestations. The majority of the practices in both areas are in agreement and it is, therefore, possible to tell a student to limit his use of the *tú* forms to occasions where he would have no hesitancy about using a first name in his own language.

A TENTATIVE STUDY OF THE INTONATION OF JAPANESE

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With the purpose of establishing an accurate and solid foundation upon which to base effective materials for the teaching of English intonation to Japanese speakers, this investigation of Japanese intonation was made in order to contrast the use of intonation in Japanese with its use in English. It became immediately evident that consideration had to be given to the other uses of pitch in Japanese. If careful attention were not given to the other significant uses of pitch in Japanese, how would one discern intonation and be able to distinguish its distinct operation? Whereas pitch is used in English phonemically only for intonational purposes, in Japanese phonemic pitch has three functions--word accent, sentence accent, and intonation. The distinguishing of these three functions turned out to be a process very much like the peeling of an onion. The layers of the use of phonemic pitch for word accent and sentence accent had to be removed, one at a time, before intonation could be isolated enough for investigation. The paper aims at thoroughness and accuracy, but the scope is limited; therefore, the conclusions should be interpreted as tentative rather than final.

Word accent in Japanese serves very much the same purpose as word stress in English. Accent has been defined as "a prominence given to one syllable in a word or in a phrase over the adjacent syllables, independent of the mode in which this prominence is produced."¹ However, in this paper the term, "accent," has been limited to the prominence produced by pitch, which is dependent upon the frequency of vibrations, in order to maintain a distinction from the prominence produced by stress, which is due to greater force of breath producing the effect of loudness. Speakers of English are familiar

1. Masatoshi Gensen Mori, *The Pronunciation of Japanese* (Tokyo: The Herald-sha, 1929), p. 3.

with phonemic word stress in English. By stress upon the first syllable such English nouns as "import," the optional form of "permit," and others may be distinguished from identically spelled verbs, "import," "permit," which receive the stress on the second syllable. In Japanese, words of identical syllables are distinguished by pitch rather than by stress. That is called word accent. Some examples are as

follows:² *hashi*, *shi*, "chopsticks," *hashi* "bridge," and *hashi*, (with the same pitch on both syllables) "edge"; *asa*, "morning" and *asa*, "hemp"; *umi*, "sea," and *umi*, "purulent matter"; *hana*, "flower," and *hana* (with the same pitch on both syllables), "nose." These minimal contrasts show us that pitch is phonemic in Japanese in word accent just as stress is phonemic in English word stress. Also, there seem to be in these examples two "kinds" of Japanese words--namely, those which show an internal contrast of pitch, and those which do not; that is, those words which seem to have an inherent accent, and those which do not. A convenient set of terms for those two "kinds" of Japanese words would be "tonic" and "atonic."³ From those examples one could make the first distinction of pitch levels. There seem to be two levels immediately evident. One level accounts for all of the syllables of the "atonic" words and a part of the syllables of the "tonic"; the other level accounts for the contrasting syllables of the "tonic." The first level may be designated as "mid," or as /m/ since the difference is significant; the second level may be termed "high" or /h/. Obviously, the above examples are inadequate. All are two-syllable words. Longer words follow the same principle. The general pattern of pitch-accent in Japanese can be shown pictorially. Let "0" represent a single syllable. The chart would be as follows:

2. Here and throughout the paper the accent is that of the standard Tokyo dialect. Two informants, native speakers of the Tokyo dialect, were used. At points idiolect characteristics may have crept in; a "margin of error" may be allowed accordingly.

3. Samuel E. Martin, *Essential Japanese* (Tokyo: Charles E. Tuttle Company, 1954), p. 429: "Japanese words may be divided into TONIC and ATONIC. A tonic word is one which has a basic accent, although this accent may disappear in certain contexts. An atonic word is one with no basic accent, although it may acquire an accent in certain contexts."

Unaccented	Accent on 1st	Accent from 2nd.	Accent only on 2nd	Accent only on 2nd and 3rd
0 (m)	0 (h)			
00 (mm)	00 (hm)	00 (mh)		
000 (mmm)	000 (hmm)	000 (mhh)	00 (mhm)	
0000 (mmmm)	0000 (hmmm)	0000 (mhah)	000 (mhmm)	000 (mhhm)

The chart is not exhaustive, but it is helpful in grasping the general pattern of word accent in Japanese.⁴ The chart shows that monosyllabic words may be either atonic, /m/, or tonic, /h/. A minimal contrast would be *ki*, "mind" or "spirit" and *ki*, "tree" or "wood." It should be noted, however, that except for certain monosyllabic words, high pitch does not stand alone as word accent. That is, the writer has not found any words of more than one syllable which have only high pitch.

The above analysis has allowed only two levels of pitch for the description of word accent. It should be pointed out that some distinguished linguists think that three levels of pitch--low, mid, and high--are necessary for the description of word accent. The difference of opinion revolves primarily about the initial syllable of atonic words when they are uttered in isolation or as a part of a lexical list. The answer to that, however, seems to lie in the fact that utterance initial in Japanese usually is "low" in contrast to the rest of the sentence. That touches on intonation and will be dealt with later. But those who think three levels are found in the word-accent phenomena of Japanese say that sometimes the contrast between an accented syllable and an unaccented syllable is too great to be considered a drop from high to mid; it is, they say, a drop from high to low. This, however, seems to imply absolute pitch. Such a measurement of contrast seems to me to destroy the relative nature of pitch in Japanese. Nor is it possible for me to find, outside of an utterance where again intonation seems to account for it, all three levels appearing in any single word.⁵ The position of this paper,

4. The pictorial chart was received in totality from Professor Hide Helen Shohara, University of Michigan. I gratefully acknowledge Dr. Shohara's patient and invaluable counsel on other points as well.

5. Standard accent dictionaries agree unanimously upon only two levels. Cf. *Nihongo Akusento Jiten* of the Broadcasting Corporation of Japan and that classical work by Kaku Jimbo, *Kokyō hatsun Akusento Jiten*.

then, is that of many other linguists than those mentioned above--that is, that two significant pitch levels are sufficient to describe the word-accent phenomena of Japanese. Some have called these two levels "lower mid" and "higher mid,"⁶ but for the sake of simplicity and clarity, in this paper the two levels are called mid and high, and are designated by the symbols /m/ and /h/.

Before leaving the consideration of word accent, another factor needs to be considered. The normal accent of a word may be affected by its environment. Martin has given a much more exhaustive treatment of these changes than it is practical to include here.⁷ It will be sufficient to summarize them as follows: (1) Certain suffixes when added to tonic words make them atonic. (2) On the other hand, some suffixes have an accent which is dominant. That is, instead of making the word atonic, the suffix causes the word to drop its original accent and follow the pattern required by the accent of the suffix. (3) When followed by "no" (which may be either copula-alternate, general noun, or particle), atonic inflected words become tonic with accent on the final syllable, but tonic uninflected words become atonic. In fact, atonic inflected words tend to become tonic with accent on the final syllable before most particles. (4) Accent may be induced by modifiers. (5) One of the most interesting changes is that influence of the high pitch within a closely related phrase. The high pitch tends to lift the pitch of all but the first syllable of the phrase group to its own level. (In the following, *ushi*, "cow," is atonic and *ga*, untranslatable particle indicating subject, has no accent of its own.) In the phrase, *ushi ga imas(u)*⁸ *ga*, the influence of the high accent in the verb, *imas(u)*, lifts all but the very first of the normally atonic syllables to its own level. Martin calls attention to this.⁹ So

6. Bernard Bloch, "Studies in Japanese Phonemics, *Language*, 26, p. 95.

7. Samuel E. Martin, "Morphophonemics of Standard Colloquial Japanese," *Language*, 47, pp. 32-47.

8. Particularly such verbs as "imasu," "desu," and "arimasu" tend to lose the final "u" of the last syllable. Technically, the final syllable, "su," should drop to mid, but since the "u" is silent, the drop--if there at all--is all but imperceptible. Thus, "Mase(u)" is treated as a simple syllable, as is "des(u) when it occurs.

9. *Ibid*, pp. 18, 19.

does Jorden who reproaches Bloch for neglecting this point.¹⁰ However, Bloch may not be altogether wrong, as Jorden seems to say, for this investigator discovered that while this last phenomenon *often* happens, it does not *always* occur. The conditioning is obviously environmental, but there seems to be free variation.

Moreover, something else happens when two tonic words are spoken in one accent phrase, that is, a phrase spoken in close juncture and dominated by a single accent such as the one described above. The first usually retains its accent, and the following words lose their accents.¹¹ Yamagiwa very helpfully said, concerning changes inside an accent phrase, "In words that are closely related to each other, such as modifying adjective and noun or noun and immediately following verb, the pitch carried by each of the syllables is often accommodated to that of the adjoining syllables."¹² The general rule would be this: the first high pitch rules the accent phrase. In addition, it is interesting to note that a syllable inherently pronounced at high pitch can never become lower than any adjacent syllable that is inherently mid pitch. Nor may any syllable which is inherently pronounced at a mid pitch become higher than any adjacent syllable that is inherently pronounced at high. This fact emphasizes the relative aspect of pitch in Japanese.

If we have seemed long in removing the first layer or use of pitch in Japanese, one must remember that word accent, together with its variations, must be somewhat considered before attempting to deal with intonation lest the two be confused and error result. The next layer to be peeled off is that of sentence accent. Speakers of English recognize the significant change of meaning in the following sentences:

1. Did YOU buy an automobile?
2. Did you buy an AUTOMOBILE?
3. Did you BUY an automobile?

By stress on a single word or group of words in a sentence, the English speaker is able to achieve sentence stress. This

10. Eleanor Harz Jorden, "The Syntax of Modern Colloquial Japanese," *Language*, 31, p. 5.

11. Martin, *Essential Japanese*, p. 429.

12. Joseph K. Yamagiwa, *Modern Conversational Japanese* (New York: McGraw-Hill Book Company, Inc., 1942), p. 8.

sentence stress is plainly phonemic in English. The question arises whether or not pitch is used in Japanese to achieve sentence accent, just as it was used instead of stress to achieve word accent. The three questions given above to illustrate sentence stress in English were shown to a male speaker of the Tokyo dialect. He was asked to follow the English example in using the same words in Japanese each time, but, if possible without forcing the issue, to include the changes of meaning indicated by the emphasized words. He gave the following translations with the pitches as indicated. One will note a "new" pitch level here—that is, a level above high, which is called "extra-high" and is symbolized by "x".

1. *Anata ga jidoosha o kattan desu ka?*

("Did YOU buy an auto. ?")

2. *Anata ga jidoosha o kattan desu ka?*

("Did you buy an AUTO. ?")

3. *Anata ga jidoosha o kattan desu ka?*

("Did you BUY an auto. ?")

Those patterns were then tried upon a female speaker of the Tokyo dialect without any explanation other than the request for her to give back in English the sense of the Japanese conveyed by those patterns. Without hesitation she gave the meanings which the first speaker had indicated to be natural to Japanese. Therefore, Japanese does have sentence accent. That is, difference of meaning within a Japanese sentence is conveyed by pitch, the word emphasized being caused to stand out by the pitch accent laid upon it.¹³ The operation of the pitch of sentence accent in Japanese is interesting. It falls upon or coincides with the high syllable, if the word is tonic, of the normal word accent, but the sentence accent overrides

13. Throughout the paper "accent" refers to pitch; "stress" to force of vocal utterance. The former is limited to Japanese, the latter to English. The writer is aware of the fact that there is also a certain amount of "stress"--in the sense of force of vocal utterance--present in Japanese, but the scope of the paper is limited to pitch in Japanese with relation to intonation. The English stress is referred to only by way of contrasting illustration.

or takes precedence over the normal high pitch of the syllable and lifts it to a higher level. Thus, /h/ of the normal word accent becomes /x/ when sentence accent is operating upon a tonic word. The extra-high pitch signifying this special emphasis cannot fall upon a different syllable from the one receiving the high pitch of the normal word accent. If, on the other hand, the word is atonic, the normal mid pitch of the word accent is lifted by the sentence accent to high. The following sentences will illustrate this. One will note the use of "l" to indicate the presence of a "low" pitch. This has no immediate connection with the sentence accent being illustrated and will be discussed later.

Kore wa watashi no desu.

("This is mine." Without sentence accent.)

Kore wa watashi no desu.

("This is mine." With sentence accent.)

Kore wa Tanaka-san no desu.

("This is Mr. Tanaka's." Without sentence accent.)

Kore wa Tanaka-san no desu.

("This is Mr. Tanaka's" With sentence accent.)

The second layer or use of pitch in Japanese has now been lifted, and we have found one new pitch level, extra-high or /x/, plus a new use for /h/.

It is at last time to examine intonation, the third layer or use of pitch in the Japanese language. The low pitch, "l," mentioned above is an excellent starting point. When discussing earlier whether or not the word accent of Japanese should be described in terms of two or three levels of pitch, it was mentioned that some thought a "low" pitch should be recognized. They say they hear this low pitch on the initial syllable of atonic words when they are uttered in isolation or a lexical list. Again, in the above utterances a low pitch is heard on the initial syllable of an atonic word (*kore*) which stands at the beginning of a sentence. When many examples have been examined, one realizes this "low" pitch occurs again and

and again—as *utterance initial*. The obvious conclusion, then, is that it is a characteristic of Japanese to begin "softly," and that here is the first intonation pitch level clearly distinguishable from word or sentence accent. It is a level phonemically contrastive with the three levels previously discussed, and in the position just described, it seems to signal utterance initial.

Of course, such a use of low pitch does not establish that level as phonemic at this point. However, the following example does clearly establish low pitch in Japanese as an intonation phoneme:

1 h
Nani (Meaning "What?" in the sense of "What did you say?")

m l
Nani (Meaning "What?" in the sense of "What was it?"—used as a response to such a statement as "I saw a funny thing this morning.")

Both of those utterances may stand as utterance initial for the responding speaker. A variation of the first may even be l-x if surprise or exasperation enter into the feeling of the response. The second may also vary if surprise or anticipation enter into the feeling. That is, if the speaker said, "I brought you a nice present this morning," the response may be h-l or even x-l. There are other uses of this fourth pitch level, /l/, just as the other three levels will presently be shown to serve more than one use. /h/ has already been shown to serve as a significantly contrasting level from /m/ in word accent and to have the second use of lifting /m/ to /h/ in sentence accent. But it is now time to say that there seem to be four suprasegmental pitch phonemes in Japanese, roughly corresponding to the four levels in English: /x/ is extra high; /h/ is high; /m/ is mid; and /l/ is low. This analysis is, in result, practically identical with the conclusions of Bloch¹⁴ and Martin¹⁵.

Before going deeper into intonation, one notes that Eleanor Harz Jorden finds "five significantly different pitch levels . . ." ¹⁶ After a careful reading and re-reading of that portion

14. Bloch, *ibid.*

15. Martin, "Morphophonemics of . . . Japanese," p. 12.

16. Jorden, *op. cit.*, p. 19.

of her excellent and valuable dissertation, this writer understands Jorden's use of the fifth level to indicate *degree* of animation. "In general, in a given utterance, the greater musical interval between any two significant pitch levels, the more animated the utterance."¹⁷ She then gives the following examples:

Did you buy a car? ("animated"—ending with 33225)

Did you *buy* a car? ("more animated"—ending with 4425)

Did you **BUY** a car? ("still more animated" — ending with 55225)

The problem which such an analysis as that poses in the mind of this poor reader is this: 'Why not have *BUY* still yet more animated with 66225, and **BUY** even more animated than ever with 77225, etc. etc.?' If *degree* of animation is the justification for allowing the extra level (and no other explanation has become clear to me in my reading of her dissertation), then one feels that the fifth level is not a true pitch phoneme and that degrees of animation can rather be best explained and described as allphones of /x/, or as voice qualifiers. As a matter of fact, the Japanese people often use a tightly constricted condition of the vocal cords through which air is forced without actual vocalization to express extreme emotion or agitation. This would probably be, ipso facto, the MOST animated method of all Japanese expression, yet this could hardly be called pitch of any level since there is usually no voicing with it. Therefore, is it not better to limit the phonemic description of Japanese to the four levels of /x/, /h/, /m/ and /l/?

The concluding portion of this paper can now be devoted entirely to intonation. It is hoped that the sorting out or stripping off of layers up to this point has not been in vain, but rather will serve to bring whatever can now be discovered and said about Japanese intonation into sharper contrast and clearer focus.

Japanese, though far from being a monotone or even a duotone language, nevertheless, does not reveal the vast variety of intonation changes which English has. Analysis of Japanese points to the last voiced syllable before significant pause—the majority of such instances naturally being utterance final—as the real burden bearer of intonation pitch phonemes.

17. *Ibid.*, p. 29.

As hinted briefly above, low pitch also occurs at the end of utterances. In the following illustration each word is normally atonic.

Kore ¹_m _m _m^m _m ^h _m ^{1//} *wa watashi no desu.* ("This is mine. ")

The "soft" beginning or use of /l/ as the signal of utterance initial has already been treated. In this illustration the final syllable also drops to /l/. Since all the words are normally atonic, including *watashi* which is influence by the particle *no*, the drop to /l/ is not because of word accent, nor can its cause be traced to sentence accent. The final /l/ is also an intonation phoneme. The illustration is a statement; investigation reveals that *most* statements have the characteristic drop to /l/ on the last voiced syllable before final pause.

There seems to be no "contour" here such as is familiar to the English speaker. It is often said that intonation in English is not limited to specific syllables or words, but may be spread out over as many syllables and words as are colored by the speaker's attitude. While intonation does operate in a limited way in utterance medial, nevertheless, the real weight of intonation seems to fall upon the single final voiced syllable before significant pause. It is true that, in looking at the above illustration, there seems to be a "contour" of "m-l" because of the fall from /m/ to /l/ on *no desu*; or, one may think *watashi no* to show a m-m-h-m contour. However, the evidence does not seem to support such contours. Every pitch level in the foregoing example, except the /l/ can be adequately explained in terms of word accent and its variations. It is true that sometimes both intonation and word accent pitch can be operating upon the same syllable, but that does not seem to be the case here. For example, if the antecedent of *kore*, "this," had been *ki*, "tree," the statement could have been said as follows:

Kore ¹_m _m _m^m _m ^h _m ^{1//} *wa watashi no ki desu.* ("This is my tree. ")

Here the seeming "contour" is h-l. According to the analysis of English contours, such a difference of pattern should indicate some, though perhaps slight, change of meaning. But in the two illustrations just given, the seemingly different patterns or "contours" have no change of meaning. The only fact demonstrated by the /h/ on *ki* in the second example as dif-

ferent from /m/ on *no* in the first is that *ki* is a tonic word, receiving word accent pitch, whereas *no* is atonic, receiving only the /m/. Therefore, must it not be concluded that the intonation is limited to the final voiced syllable and occurs not as a contour but as a single pitch? Other examples seem to support this conclusion.

So far only /l/ has been discussed as a clearly distinguishable intonation pitch. Are there other intonation phonemes to be found? If so, will the pitch levels be different from or identical with the levels already discovered for word and sentence accent?

I repeat an earlier illustration:

Anata ga jidoosha o kattan desu ka? ("Did you BUY a car?")

The final syllable is shown as /h/, but *ka* is a particle which does not have inherent accent; it is atonic. Therefore, the /h/ on the *ka* is not word accent. Also, it is not sentence accent, for that is shown to rest on *kattan* "BUY." This /h/ on *ka*, then, is an intonation phoneme. The fact that /h/ is also frequently used both as word accent and as sentence accent demonstrates clearly that a single pitch level in Japanese may serve more than one function. This fact will be further understood if one remembers Jorden's example of "fifth level" animation. The writer disagrees with her fifth level, but agrees that the highest level of phonemic pitch (whether it be the fourth or the fifth) can fall upon the *ka* of her illustration. Moreover, examples could be cited showing both /l/ and /m/ falling upon the final voiced syllable before significant pause. To repeat, /m/, /h/, and /x/ were first shown to be active as pitch phonemes in word and sentence accent (and some authorities think even /l/ active as word accent), but now it is clear that Japanese intonation makes use of four pitch levels—/l/, /m/, /h/, and /x/. The levels overlap phonetically, that is, are identical as sounds, but are phonemically contrastive in that they sometimes serve one function and elsewhere another. Sometimes a word accent phoneme and an intonation phoneme may fall simultaneously upon the same syllable as an identical sound (such as /h/, /h/ sounding only as a single /h/), but one should understand both functions to be operating.

It would not be out of place to consider the major "meanings" of each of the four intonation levels. As this is a step

into morphemics or morphophonemics, it will help in a fuller insight into the operation of intonation in Japanese.

In the statement, *kore wa watashi no desu* ("this is mine"), /l/ fell upon the final syllable. It was stated that most statements end with /l/ intonation. The primary meaning, then, of /l/ as intonation is that of finality or statement.

In the question, *anata ga jidoosha o kattan desu ka*, the /h/ on the final syllable, *ka*, indicates surprise. It cannot simply be called "interrogative" as both Martin and Jorden indicate for the particle "ka" is in itself the sign of the interrogative. The same question could be asked with /l/ on the *ka*. In that case the intonation pitch, /l/, would indicate something of awe, but the sentence would still be a question. So may *ka* bear the other intonation levels; while the meaning changes accordingly, yet the interrogative quality remains constant.

It is true that *ka*, the Japanese question mark, may be left off an utterance and by intonation alone make an interrogative utterance. To do that /h/ is the intonation level most frequently used. An interesting side-light can be seen in this phenomenon. When such a question is formed without the use of *ka*, one can hear the nearest to a true glide in Japanese, but it cannot be called a contour, for the use of the pitch as word accent is formed first and then the intonation pitch follows. It sounds like a contour, but it is not an intonation contour for the first sound is word accent and only the final is the intonation. In that particular instance /h/ may be called "interrogative" but that use is rather restricted. It should be understood, of course, that when a "primary" meaning is given for each of these intonation levels it does not mean that is the only use of that level, nor is the expression of the meaning given for any level restricted only to the particular level named. For example, surprise could be conveyed by /l/ intonation. However, the primary meaning of /l/ is statement and that of /h/ is surprise.

In the example, *anata ga jidoosha o kattan desu ka*, with /x/ as the intonation pitch on *ka*, which would be my marking of Jorden's example, the primary meaning of /x/ is demonstrated. It is the meaning of animation—of exclamation or intensity.

In the following example, the primary meaning of /m/ becomes clear:

Watashi ga mairimasu kara . . . ("Since I am going . . .")

Obviously, the utterance is incomplete, but such "incomplete" or fragmentary utterances are frequent in Japanese. They are used in situations in which the auditor understands and mentally supplies the remainder of the sentence himself. (Such fragments often end with /l/ in which cases the meaning is usually that of the adversative.) When /m/ is used at the end of such fragments, the meaning is that of suspension, incompleteness, or deliberation.

This analysis of the "primary meanings" of Japanese intonation levels has not been exhaustive. One could expand it considerably by an examination of the secondary meanings conveyed by each level. For example, a continued use of low in place of a normal mid in a sentence usually has the meaning of sneer or threat. Excessive use of high pitch shows tension, nervousness, or excitement. Moreover, very little has been said about internal operation of intonation. Intonation does occur in utterance medial, but even more vestigially than at the end of utterances. The patterns of meanings for internal change follow those given above for the end of utterances. The break or pause (and significant pause is necessary for the operation of intonation internally) usually takes place after an important particle which shows subject, object, location, purpose, or other such.

In summary, one must seek to understand the use of pitch in word accent and sentence accent in Japanese in order to be able to distinguish clearly the operation of intonation. But the structure of Japanese seems to allow the peeling process, and the lifting of each layer enables one to see just how all three uses of pitch function simultaneously in Japanese. One should not, in my opinion, consider anything intonation which can clearly and adequately be shown to be word or sentence accent. When both word accent and intonation fall upon the same syllable, one of three things happens: (1) If the pitch level of both is the same, though one should think of both in operation, the sound is identical and cannot be distinguished. (2) When the intonation is lower than the accent pitch of the atonic words (/m/), the intonation pitch (/l/) carries the word accent down with it. (3) However, when the intonation rises above the word accent pitch, the word accent pitch is first made and then the intonation pitch follows. That is, if it is normally pronounced at high accent (/h/) and the intonation pitch is /x/, the accent pitch is first pronounced as /h/ and then the intonation pitch as /x/. Likewise, if the accent is normally /m/,,

the accent pitch is first formed and then raised to the higher intonation pitch, whether it be /h/ or /x/.

Intonation in Japanese is vestigial, falling not in contours but upon single syllables—upon the last voiced syllable before significant pause. The results of this paper, while not final, show the intricate use of intonation in Japanese. This study has led the writer to conclude that not only should more work be done in intonation, but that an investigation of voice qualifiers as used in Japanese would be extremely valuable. It may be that the "lack" of intonation contours is balanced in Japanese by what may prove to be *significant* voice qualifiers. But if a basic understanding of Japanese intonation has been attained, this paper has not been in vain. It is only after a basic understanding of their native intonation habits has been gained that we can be most effective in teaching English intonation to Japanese speakers.

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A VISUAL AID TO PRONUNCIATION

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For three years I have been using a device in my classes that seems to have proved itself worthwhile. First conceived as a labor saving item (to eliminate countless messy and time consuming chalk drawings), it turned out to be of significant aid in the initial presentation of pronunciation.

Briefly, a cross-section of a human head was drawn on fairly rigid show-card material.¹ The drawing remained without a lower jaw and without much of a velum; these were drawn on separate sheets, cut out, and mounted and hinged on the main drawing. Only the root of the tongue is integral with the jaw, the balance being provided in the form of detachable tongues, each designed to represent the "peak" of the tongue action in the production of a given phone. By the use of a simple jaw holding device and an equally simple tongue mounting system, the head can be set to demonstrate principal articulation features in a second or two. A few suggestions for construction are shown on the accompanying plates.

Pancho, as my students immediately dubbed him, is not needed as a permanent fixture in the classroom. I use him during only the first four to six class hours at the beginning of the year. I have found considerable use for him later, though, in teaching pronunciation to second, third, and fourth year students who have never heard of such things as Spanish dental stops and "other linguistic nonsense," and who are still happily substituting English phones. Pancho's presence is of benefit only until the students have absorbed the import of the articulatory descriptions given them and, through his aid as a model, learned to produce acceptable sounds themselves. Once you have them articulating in the proper place and manner the rest is a matter of drill. Errors at that stage can be corrected much more rapidly by means other than Pancho. However, for helping the students "contort" their vocal organs into an unfamiliar arrangement for the first time or so, Pancho is

1. Dr. Edgar Mayer, now of Wayne State University, supplied the drawing of the sectioned head and the jaw locking mechanism.

superior to anything I have ever seen or used, and certainly surpasses a mere word description or the common type of pronunciation teaching in which the instructor tries to explain while pointing out features in his own mouth. This leads to a garbled message, at best. Pancho also eliminates the need for successively louder repetitions by the instructor and student, interspersed with agonized commands to "Imitate *me*!" He greatly speeds the development of a kinesthetic sense, which may itself be further exploited.

In actual use, I work from a phonology summary with examples using the same symbols as are on the tongues.² As I attack a new phoneme I set Pancho to demonstrate the articulation, make some comment on non-demonstrable features such as rounding, tension, etc., and proceed to drill. This procedure is quite simple, and when coupled with a rigid insistence on accuracy, has produced excellent results. Many students have craftily watched me fix Pancho, then correctly produced non-English sounds without ever having heard them. This contrasted with their usual ability to maintain indefinitely an American accent despite even a native model. Pancho hardly eliminates an accent single handedly, but he does give a significant opening wedge.

This device makes articulations beautifully clear, as in demonstrating the dental articulation of Spanish /d/, for example, or in showing the difference between Spanish /g---/ and /VgV/. It should be especially helpful in such cases as the Dravidian retroflex vs. dental consonant contrasts. For teaching these to English speakers we could show them the tongues for, say, Tamil /d/ and /d/, then a nice English alveolar /d/ squarely between them. This plus a very few words of explanation should make it crystal clear why English speakers have difficulty in hearing this contrast, and why it is essential that they learn to produce the Tamil consonants correctly; at least if they plan on communicating.

It frequently works well to put on two or more tongues at the same time; this is very good for the vowels. Also, the students are impressed by the use of the same tongue for "entirely different" sounds, such as English /d/ and /n/. The

2. It would be silly in the extreme to construct this device, then to render it largely useless and misleading by marking the tongues with "letters" from the alphabet of the target language. Too many such follies are already being committed in the name of "oral" language teaching.

tongues I use are outlined in red for visibility, which helps particularly in overlapping them. It might be advantageous to make a complete set of tongues in the students' native language, though I have not done so as yet. They could be edged in a contrasting color. A plan to make a set of English tongues from clear plastic was shelved due to the cost of plastic sheets large enough for the purpose, but they would work beautifully as overlays, allowing the target tongue to be seen in its entirety.³

Some technicalities, objections, and hints need to be discussed. First, the whole idea of Pancho is a fiction of a sort, since the concretely pictured articulation peak seems to indicate a momentary pause in some sort of universal "cardinal" position, which is nonexistent. Also, these are drawn largely from deceptive kinesthetic impressions. These objections mean nothing in the use of the device as a teaching aid, since when the student feels himself to be doing what is depicted, he pronounces correctly---regardless of what the true articulatory facts may be.

It is true that some features cannot be shown on Pancho as he is presently constituted. This has not proved troublesome, since the complete description of each sound is on the sheets in the hands of the students, and a word or two will suffice to give voicing, rounding, and other information. A dial and window could be installed and set to show these, but this would probably be distracting and would mean going too far in the direction of an empty love of gadgetry. The next step would be electrification.

Pancho requires support of some kind unless he is to remain in one room, in which case he can be nailed on the wall like a poster. Since I must keep him portable, I use a small collapsible table-top easel. This works well and is very economical.

A question naturally arises as to how many tongues are necessary with Pancho. This will of course depend on the language involved and on the analysis of the language. Because of his physiological rather than linguistic basis Pancho is universally applicable, and should be useful in a phonetics

3. Tongues must be sketched to fit, using as guides the standard works on general phonetics and on the phonetics of the particular language involved (if such a work exists). Examples are: Daniel Jones, *An Outline of English Phonetics*; and *Navarro Tomás, Pronunciation Española*.

course,⁴ but in working on a specific language it is inconceivable that he should be used without reference to a phonemic analysis. Since he is used in studying the production of specific phones, the teacher should not restrict himself to a "tight" phonemicization. This is not to say that a *good* phonemicization is not to be used, since it is obviously imperative that the pronunciation of the language be approached through phonemics, and that the phonemic principle be the constant base for all the work. It does mean that at least the principal allophones must also be illustrated and studied, except, perhaps, for cases in which the conditioning factors of the student's native language will lead automatically to the proper allophonic variation and distribution in the target language. These will be rare.

Though the study of phones in excess of the number of phonemes makes it seem like an old-fashioned purely phonetic approach, a great deal will be lost if the teacher fails to avail himself of the phonemic principle and to see that his students are aware of its operation and significance. The whole feeling for an ordered structure will be lost, and once the phoneme is removed from the picture there is no limit to the number of tongues that could be made (and "justified") for use in the class. The teacher not aware of the phonemic principle, or steadfastly unimpressed by it, would scoff at this statement. He would be wrong, and would also reveal that he needs to do some reading in twentieth century linguistics; he should read from authors rather than critics of the field.

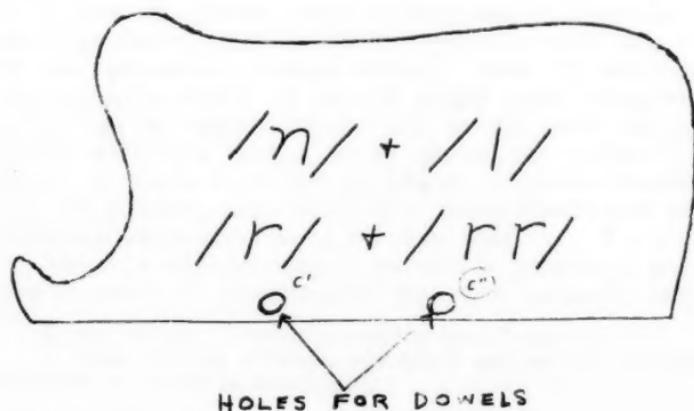
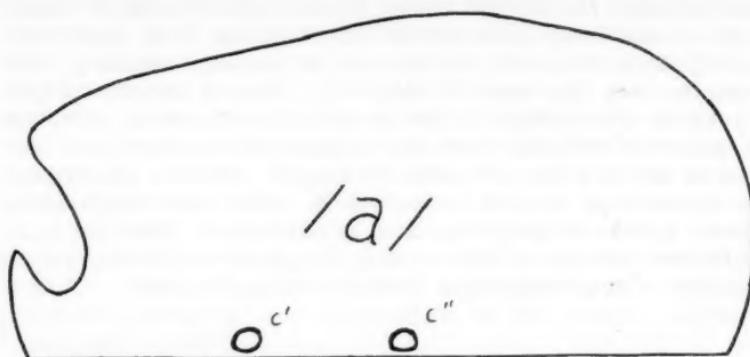
Regarding construction: the basic drawing should be made on a sheet of poster board stiff enough to stand by itself, while the moving parts should be lighter to avoid undue strain on the rudimentary locking device. India ink and red show card color (available at any art supply house, along with the paper) can be applied easily and quickly with one of the "speed ball" pen points in a conventional holder.⁵ Brass spread fasteners work well as hinges. Pancho should be as large as possible, with portability requirements and available cardboard sheet sizes being borne in mind.

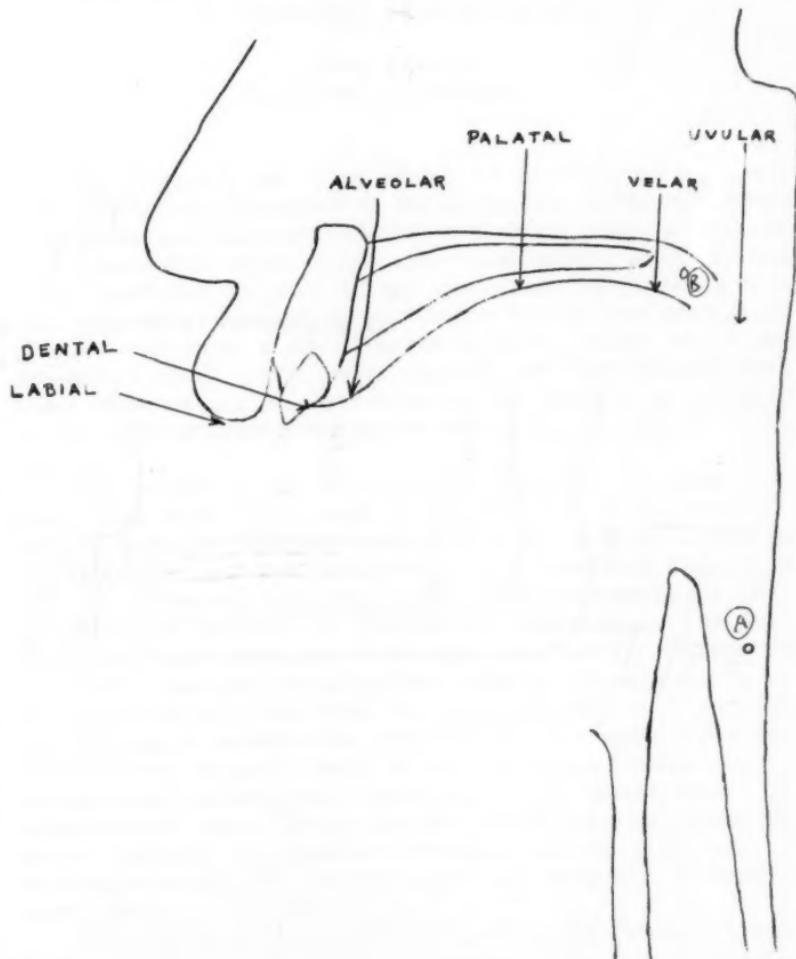
Pancho's chief advantages are that he permits a more precise approach to pronunciation than that normally employed,

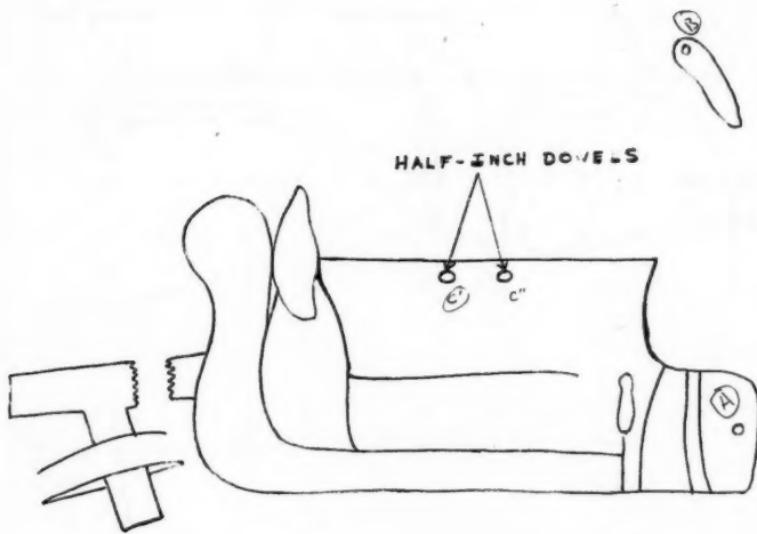
4. And perhaps in working with the deaf; I don't know.

5. Great clinical accuracy and detail are neither necessary nor desirable, but would be distracting.

and that where articulatory descriptions are already used he gives greater clarity and more forceful presentation to them. He gives one more opening for the injection of at least elementary linguistics into the business of language teaching, and opens the way for more if desired. Even if introduced only because he is another in the parade of audiovisual aids, he can scarcely help but turn the thoughts of teachers and students in the direction of spoken language. Despite the apparent emphasis on this in recent years, much more emphasis on genuine spoken language teaching is desirable. Even the most determined devotee of the written language would experience difficulty in demonstrating a Spanish "h" on Pancho!







AN EXPERIMENT IN THE USE OF DRILL INSTRUCTORS IN LANGUAGE LABORATORIES

James Ferrell
University of Michigan

The present paper is an attempt to describe and discuss a type of language laboratory at the University of Michigan which is implemented somewhat differently from the conventional one. It employs drill instructors, supervised pattern practice, and group repetition as well as the more customary adjunct of a tape recorder. The paper will begin with a brief account of general instruction methods in the language course and of the laboratory as it is utilized at present, and will conclude with some observations on improvements that seem to be indicated in the light of experience gained during the past six or seven months.

The course is one in first-year Russian. It meets four hours each week. It is built around Cornyn's *Beginning Russian*, a textbook modelled in general on the materials used in the Intensive Language Program of the American Council of Learned Societies, but with certain improvements in the concentration of material by grammatical categories. The textbook, like most manuals of its type, employs for its earlier lessons a phonemic transcription, contains large amounts of set conversational materials for memorization, and, although representing a considerable improvement over most of the so-called "army method" texts in that it contains some rather well-planned grammatical exercises, must nevertheless be supplemented with a large number of additional materials for pattern practice and kindred exercises for the utilization of vocabulary within the morphological and syntactic categories under study.

The creation of a special Russian language laboratory was partly intentional and partly accidental. The Slavic Department had long been eager to experiment with a form of laboratory period that would be somewhat more flexible than is possible during a compulsory half-hour attendance at the

University's large central language laboratory. Overcrowding of this central facility made the college authorities agreeable to the setting up of a special first-year Russian laboratory that would utilize normal classroom space at times when it was not being tenanted by classes. It set aside a sum of money sufficient for the purchase of a good portable tape recorder and amplifier¹ and for the payment of a language drill-master² for two hours a day, four times a week.

The minimal purpose of the first half-year of the laboratory was that of teaching comprehensible Russian pronunciation, improving the student's passive understanding of spoken Russian, ensuring that each student should be able to reproduce from memory the assigned Russian text on hearing the English equivalent, or be able to give the (or a) correct response to a Russian question or command.

A native Russian member of our staff recorded the "sentences" and "review" sections of the textbook on tape with pauses for repetition. She also recorded some rather extensive exercises involving minimal pairs.³ The use of tapes and a single recorder under the care of the drill-master has proved to be considerably cheaper and better than the use of records in the central laboratory. Since the tape recorder and tape were handled only by the drill-masters who have had instruction in its care, breakage and other forms of damage were reduced to a minimum. In addition a single tape suffices for the whole first-year group. Because the equipment and materials are of good quality and because tape is not subject to the same deterioration from scratches and wear as discs are, the reproduction is excellent.⁴

During the playing of the tapes, the drill-master moves among the students listening to their repetitions. He takes notes on any particular inadequacies that each student may be showing. Where these inadequacies tend to be general in type,

1. Ampex #601 Recorder and #620 Amplifier.

2. The pay and the actual total time involved are roughly one-third of that of a teaching fellow.

3. Despite the present feeling of disillusionment that some of the more advanced applied linguists appear to feel about minimal pairs because they are generally briefer than normal utterances, we have found their use, on the whole, beneficial in aiding the student to distinguish and reproduce phonemic distinctions in a foreign language.

4. It should be noted that we were fortunate in that most of the classrooms at Michigan are adequately treated to cut down on echo.

he gives the class corrective drill in the problem; where the inadequacy is special, he speaks to the student privately.

The tape and supplementary exercises normally take about one half of the thirty-minute period for the first three days of the four-day lesson. On the fourth day this fifteen minute period is used for checking memorization of the text. The remaining fifteen minutes of each day are devoted to pattern practice based on the "sentences" unless, as is not infrequent, there is other, more pressing business. This pattern practice is similar to, but somewhat simpler than the materials used in class. More complex materials require both smaller groups of students and greater experience in handling problems that are characteristic of the classroom proper.

As was noted above, more pressing matters not infrequently cut down on the amount of time devoted to pattern practice in the laboratory. Examples of such matters are the need for maximal practice in spelling during the change-over from a phonemic to the Cyrillic alphabet.⁵ The shift in alphabet proves rather painful for the students, and a large amount of time and energy has to be spent in helping them during this period. At times mass forgetting on the part of the students of past material that had once appeared to be fairly well mastered has led to the use of the laboratory for drill in these specific topics.

At this point it might be helpful to attempt to assess on the basis of the Department's experience so far the advantages and disadvantages of this type of laboratory as against the conventional one.

In respect to attendance the laboratory with a drill master offers a gratifying improvement. This is no doubt due in part to the keeping of attendance rolls by the drill master and weekly reports to the instructors on all absences, but it would also seem to be due to a sense of immediate benefit that the students receive from their laboratory period. Moreover, in this connection, we must not forget that language is, after all, a social phenomenon. It normally is learned and practiced among groups of people rather than alone. The sense of group

5. I think that all the instructors in first-year Russian feel that it would be advantageous to begin the first lesson in the Cyrillic orthography with the phonemic transcript subordinated to a secondary position.

participation and group accomplishment may also play a part in the improvement in attendance.

The pronunciation of this year's class shows a general advance over that of past years. The students profit, as one might expect, from direct corrections of pronunciation faults while learning the taped sentences. They also profit from the brief conferences where attempts are made to indicate the position of the speech organs.

The laboratory has made an important contribution in relieving the classroom period of a number of its more burdensome chores. The time saved from checking on memorization and spot reviewing of forgotten materials gives the classroom instructor more time for classroom exercises in the items of linguistic structure on which he is concentrating. Finally, practice in the laboratory on pattern materials similar to, but not identical with, those used in the classroom serves to give meaningful reinforcement to the learning process.

The laboratory has the advantage of serving as a training ground for potential instructors. It gives the drill master an opportunity to learn the techniques of teaching without being confronted with all the difficulties at one time. It provides him whatever advantages that may be gained from conferences and discussion with the regular instructors on topics related to the conduct and future planning of the laboratory and the associated classes. Finally, in this connection, it gives the department a chance to observe the talent and effectiveness of the drill masters.

There is common benefit for the teacher and the drill master (and ultimately for the students) in continuing discussions of the students, their progress, and their failings, that must be carried on from week to week. Likewise, the discussion of the course materials results in improved planning. The opinions and observations of two people does lead to more objective assessments than would result from those of one. Furthermore the division of labor results in neither the teacher's nor the drill master's being confronted with the need of correcting the less talented students on all fronts simultaneously.

In respect to cost the laboratory with drill masters probably is no more expensive than the conventional laboratory when the cost of space, breakage and of wear of machines and records is taken into account.

The foregoing appear to be the chief advantages of a language laboratory under a drill master. However, it should be

pointed out that the conventional laboratory does have certain features of superiority of its own. The conventional laboratory, for instance, allows the student to make replays of materials as often as he may wish in order to gain practice on specific points of difficulty. Moreover the conventional laboratory lends itself rather better for use of certain types of exercises, particularly exercises consisting of passive listening followed by questions to be answered in writing: e.g., brief anecdotes followed by exercises based on questions concerning the content.

However, there is certainly nothing that *per se* excludes the instructor's utilizing the conventional laboratory for such purposes in addition to his utilizing the laboratory with drill masters for those functions which it performs better. In just such an articulation of the two types of laboratories would appear to be one of the major areas in which our use of the laboratory could be improved. That such additional use of the conventional laboratory would increase the total time spent by the student in laboratory work to something approaching four hours a week could be taken into account in decreasing other assignments. More extensive use of laboratory facilities at the cost of unsupervised home study would not represent a loss since the average student in a first-year language course tends to be very wasteful of time in studying alone.

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A COMPARATIVE STUDY OF AMERICAN ENGLISH AND IRAQI ARABIC CONSONANT CLUSTERS.*

Alice Paul Malick

Introduction

"In learning a new language, then, the chief problem is not at first that of learning vocabulary items. It is, first, the mastery of the sound system to understand the stream of speech, to hear the distinctive sound features and to approximate their production. It is second the mastery of the features of arrangement that constitute the structure of the language."¹

It is clear in the above quotation that the recognition and production of the distinctive sound system of a new language is of primary importance in mastering that language. The sounds of a language are to a learner as important as vocabulary and grammar, if not more so. The learner of a new language may even have distinctive sound units in his own language similar to those in the learned language but may not have their similar combinations or clusters. In this case he will still have the problem of recognizing and producing the clusters not existing in his native language.

It is the aim of this paper, therefore, to discuss the consonant clusters of the Baghdadi Arabic dialect and those of modern American English to discover those consonant clusters occurring in American English but not in Baghdadi Arabic. We are emphasizing these consonant clusters because in learning a new language it is the unknown linguistic habits that constitute the problems, and it is only by discovering these difficulties that we, as teachers of English, can attempt to overcome them.

*I wish to acknowledge my indebtedness to Dr. R. Lado and Dr. E. McCarus whose assistance and guidance made this article possible. I would also like to thank my Iraqi friends Miss S. Tawfiq, Mrs. N. El-Saden and Mr. S. Abbass who were very patient and helpful informants.

1. Charles C. Fries, *Teaching and Learning English as a Foreign Language*, (Ann Arbor, 1945) p. 3.

The Material

The Arabic discussed in this paper is the spoken dialect of the socially accepted people of Baghdad, Iraq. It is also spoken in many other towns all over the country. In this study I have served as my own informant since adequate material was unavailable, and in addition, I have had three informants speaking the same dialect to ascertain the accuracy of the given pronunciation.

Henceforth, any mention of Arabic will mean the Baghdadi Arabic dialect, and English will mean American English.

*The Data*²

Arabic two-element consonant clusters occurring word initially ³		English two-element consonant clusters occurring word initially
/pl-/ /'plan/	'plan'	/pl-/ play
/pr-/ /'praawa/	'fitting'	/pr-/ pray
/py-/ /'pyaada/	'on foot'	/py-/ pure
—		/pw-/ pueblo
/bt-/ /'btayl/	'with a wire'	—
/bd-/ /'bdan' buus/	'with a pin'	—
/bṭ-/ /'btana/	'lining'	—
/bk-/ /'bkaff/	'with a slap'	—
/bg-/ /bga'giil/	'grocers'	—
/bk-/ /'bkon dara/	'with a shoe'	—
/b?-/ /'b?amal/	'with hope'	—
/bč-/ /'bčiis/	'in a sack'	—
/bj-/ /'bjaybi/	'in my pocket'	—
/bf-/ /'bfaasa/	'with an ax'	—
/bθ-/ /'bθaniya/	'in a minute'	—
/bð-/ /'bðaaka/	'in that one'	—
/bd-/ /'bdahri/	'with my back'	—
/bs-/ /'bsaamiir/	'nails'	—

2. The English Initial and Final consonant clusters are from D. Harris's dissertation *The Phonemic Patterning of the Initial and Final Consonant Clusters of English from Late English to the Present*, pp. 11-76.

3. Consonants are ordered according to type of articulation: stops, affricates, fricatives, nasals, laterals, flaps and semi-vowels, proceeding from labial to glottal position within each order. The Arabic transcription is from M. Y. Van Wagoner's *Spoken Iraqi Arabic*, Holt and Co., 1949.

/bz-/ /bza'ziin/	'cats'	—
/bš-/ /'bsaat/	'rug'	—
/bš-/ /'bšaara/	'a piece of good news'	—
/bx-/ /'bxuur/	'incense'	—
/bg/ /'bgaadda/	'Baghdadis'	—
/bɣ-/ /'bhaði/	'with this'	—
/bh-/ /'bhilim/	'in a dream'	—
/bø-/ /'bøayni/	'in my eye'	—
/bm-/ /'bmuus/	'with a razor'	—
/bn-/ /'bnaya/	'a building'	—
/bl-/ /'blaagim/	'tonsils'	/bl-/ black
/br-/ /'briisa/	'with a feather'	/br-/ brook
/bw-/ /'bwaari/	'pipes'	—
/by-/ /'byuut/	'houses'	—
b		
? /tp-/ /'tpašpiš/	'she whispers'	—
/tb-/ /'tbuus/	'you kiss'	—
/tk-/ /'tkaa'kiin/	'shops'	—
/tk-/ /'tkaamir/	'you gamble'	—
/t?-/ /'t?ammin/	'you trust'	—
/tf-/ /'tfuur/	'it boils'	—
/tθ-/ /'tθuur/	'you rebel'	—
/ts-/ /'tsaafir/	'you travel'	—
/tš-/ /'tsuum/	'you fast'	—
/tš-/ /'tsuuf/	'you see'	—
/tx-/ /'txuut/	'benches'	—
/th-/ /'thanni/	'you congratulate'	—
/th-/ /'thibb/	'you love'	—
/tø-/ /'tøaab/	'tired' (plu.)	—
/tm-/ /'tmuut/	'you die'	—
/tl-/ /'tluul/	'hills'	—
/tr-/ /'traab/	'soil'	/tr-/ tray
/tš-/ /'twajja9/	'he got sick'	/tw-/ twin
/ty-/ /'tyuula/	'wires'	—
d		
/dz-/ /'dzangan/	'he became rich'	—
/dg-/ /'dganni/	'you sing'	—
/dh-/ /'dhu'naat/	'paint'	—
/dm-/ /'dmuu9/	'tears'	—
/dl-/ /'dlaala/	'dealing'	—
/dr-/ /'druub/	'paths'	/dr-/ drop
/dw-/ /'dwaaya/	'inkpot'	/dw-/ dwell
/dy-/ /'dyuun/	'debts'	—

/tb-/	/'tbuul/	'drums'	—
/tš-/	/'tsuut/	'basins'	—
/tg-/	/'tgaar/	'a unit of weight'	—
/th-/	/'t̪haal/	'spleen'	—
/tm-/	/'t̪ masit/	'I sank'	—
/tl-/	/'t̪ luu9	'a nail disease'	—
/tr-/	/'traad/	'running fast'	—
/tw-/	/'twaala/	'long' (pl.)	—
/ty-/	/'tyuur/	'birds'	—
—	—	—	—
/kb-/	/'kbaar/	'big' (plu.)	—
/kt-/	/'ktaab/	'book'	—
/km-/	/'kma'xaat/	'people of high rank'	—
/kn-/	/'knaafa/	(a sweet dish)	—
/kl-/	/'klayča/	'a kind of pastry'	/kl-/ clay
/kr-/	/'kraad/	'Kurds'	/kr-/ crush
/kw-/	/'kwayt/	'kuwait'	/kw-/ quick
—	—	—	—
/gb-/	/'gbuur/	'graves'	—
/gš-/	/'gšuur/	'peels'	—
/gh-/	/'ghuuf/	'remainder'	—
—	—	—	—
/gm-/	/'gmaat/	'diaper'	/gl-/ glow
—	—	—	—
/gl-/	/'glaada/	'necklace'	—
/gr-/	/'gruun/	'horns'	/gr-/ gray
/gw-/	/'gwaani/	'sacks'	/gw-/ guava
—	—	—	/gy-/ guules
—	—	—	—
/km-/	/'kmaaš/	'cloth'	—
/kl-/	/'klaal/	'little,' 'few' (plu.)	—
/kr-/	/'kraada/	'worn out'	—
/kw-/	/'kwaati/	'boxes'	—
/ky-/	/'kyamaa/	'doom day'	—
—	—	—	—
/čf-/	/'čfuuf/ ⁴	'gloves'	—
/čg-/	/'čguub/	'heels'	—
/čm-/	/'čmanto/	'cement'	—
/čn-/	/'čnaayin/	'daughters-in-law'	—

4. According to the pattern of the language /č/ and /ʃ/ are single phonemes and not a sequence of phonemes. They occur in /člaab/

/čl-/	/člaab/	'dogs'	—
/čr-/	/čruux/	'wheels'	—
/čw-/	/čwaarta/	(name of a village)	—
/čy-/	/čyaas/	'bags'	—
/jb-/	/'jbaal/	'mountains'	—
/jŋ-/	/'jŋayfir/	(name of a village)	—
/jm-/	/'jmaal/	'camels'	—
/jn-/	/'jnuun/	'madness'	—
/jl-/	/'jluud/	'skins'	—
/jr-/	/'jraydi/	'mouse'	—
/jw-/	/'jwaariib/	'stockings'	—
/jy-/	/'jyuub/	'pockets'	—
/ft-/	/ftahit/	'I opened'	—
/fk-/	/fkaara/	'poor' (plu.)	—
/fš-/	/fšaar/	'swearing'	—
/fš-/	/fšaal/	'style'	—
/fx-/	/fxaar/	'pottery'	—
/fh-/	/fhuul/	'strong men'	—
/fň-/	/fňaa'jiin/	'coffee cups'	—
/fl-/	/fluus/	'money'	/fl-/ flow
/fr-/	/fраš/	'bed'	/fr-/ frost
/fy-/	/fyala/	'elephants'	/fy-/ feud
/fw-/	/fwaai'niis/	'lanterns'	—
/vy-/	/vyu'layt/ ¹⁵	'Violet' <i>another name</i>	/vy-/ view
/θm-/	/'θmanyā/	'eight'	
/θn-/	/'θnayn/	'two'	
---			/θr-/ throw
/θy-/	/'θyaab/	'shirts'	—
/θw-/	/'θwall	'he got perplexed'	/θw-/ thwart
/ðn-/	/'ðnuub/	'sins'	—
/ðr-/	/'ðraa9/	'a unit of measuring length'	—
/ðy-/	/'ðyall/	'tails'	—

dogs and /'jmaal/ camels respectively. The pattern CCVC is predominant in the language, while CCCVC never occurs. C stands for any consonant and V for any vowel.

5. The voiced labio-dental fricative /v/ does not occur as a phoneme except in borrowed proper names such as Violet/vyu'layt/ and Vienna/'vyaynna/.

/dl- /	/'dluu9/	'ribs'	—	
/dr- /	/'druuf/	'envelopes'	—	
/dw- /	/dwa'yaat/	'lights'	—	
?				<i>monouns</i>
/sp- /	/spay'naax/	'spinach'	/sp- /	span
/sb- /	/'sbaaya/	(a religious rite)	—	
/st- /	/'staara/	'A fence on the roof of a house'	/st- /	stay
/sk- /	/'skamli/	'chair'	/sk- /	skin
/sg- /	/'sgurti/	'bachelor'	—	
/s?- /	/'s?alta/	'I asked him'	—	
/sc- /	/'scaa'ciin/	'knives'	—	
/sj- /	/'sjaa'jiid/	'rugs'	—	
/sf- /	/'sfanj/	'sponge'	/sf- /	sphere
/sh- /	/'shayl/	(a family name)	—	
/sh- /	/'shuur/	'meal before dawn'	—	
/s9- /	/'s9uudi/	'Saudi Arabian'	—	
/sm- /	/'smaan/	'fat' (plu.)	/sm- /	small
/sn- /	/'snuun/	'teeth'	/sn- /	snow
/sl- /	/'slaal/	'baskets'	/sl- /	slow
/sr- /	/'sraa'diib/	'basements'	—	
/sy- /	/'syuuf/	'swords'	—	
/sw- /	/'swaa'liif/	'tales'	/sw- /	swing
/zb- /	/'zbuun/	'a robe worn by men'	—	
/z9- /	/'z9aala/	'mad at each other' (plu. adj.)	—	
/zm- /	/'zmaal/	'donkey'	—	
/zn- /	/'znaa'giin/	'rich' (plu.)	—	
/zl- /	/'zlaabya/	'a sweet dish'	—	
/zr- /	/'zruur/	'thighs'	—	
/zy- /	/'zyaan/	'shaving'	—	
/zw- /	/'zwaali/	'carpets'	—	
/sb- /	/'sbuur/	'a kind of fish'	—	
/st- /	/'stuula/	'buckets'	—	
/sf- /	/'sfuuf/	'classes or lines'	—	
/sx- /	/'sxuur/	'rocks'	—	
/sh- /	/'shaah/	'whole'	—	
/sm- /	/'smalla/	'God's name'	—	

/sn-/	/snaa'diig/	'boxes'	—
/sw-/	/'swaani/	'trays'	—
/šb-/	/'šbint/	(a kind of garden herb)	dill
/št-/	/'štaayim/	'swear words'	—
/šd-/	/'šdaaris/	'what has he studied?'	—
/št-/	/'štuul/	'how long?'	—
/šk-/	/'škuul/	'what figures?'	(ridicule)
/šg-/	/'šguug/	'cracks'	—
/šk-/	/'škaari/	'what has he read?'	—
/š?-/	/'š?imār/	'what did he order?'	—
/šc-/	/'šcaan/	'what was he?'	—
/šj-/	/'šjaak/	'what came over you?'	
/šf-/	/'šfaaf/	'lips'	—
/šd-/	/'šdulum/	'what cruelty?'	—
/šs-/	/'šsawwa/	'what did he do?'	—
/šz-/	/'šzira9/	'what did he plant?'	—
/šx-/	/'šxulug/	'how ambitious?'	patient
/šg-/	/'šganna/	'what did he sing?'	—
/šh-/	/'šhuud/	'witnesses'	—
/šh-/	/'šhaala/	'he is not well'	—
/š9-/	/'š9inda/	'what does he have?'	—
/šm-/	/'šmuu9/	'candles'	/šm-/ shmoo ⁶
/šn-/	/'šniina/	'yogurt mixed with water'	—
/šl-/	/'šloon/	'how?'	—
/šr-/	/'šribah/	'what did he win?'	/šr-/ shrink
/šy-/	/sya'tiin/	'devils'	—
/šw-/	/'šwāyya/	'a little'	—
/xb-/	/xbaal/	'craziness'	—
/xt-/	/xtamit/	'I completed'	—
/xd-/	/xduud/	'cheeks'	—
/xf-/	/xfaaf/	'light' (plu.)	—
/xš-/	/xšuum/	'noses'	—
/xm-/	/xmayyis/	(a family name)	—
/xl-/	/xlaal/	'unripe dates'	—
/xr-/	/xriit/	'nonsense'	—

6. Not in Mr. Harris's list.

/xy-/	/'xyaar/	'cucumber'	—
/xw-/	/'xwaali/	'my uncles'	—
/gb-/	/'gbaaši/	'dawns'	—
/gr-/	/'graab/	'crow'	—
/gy-/	/'gyuum/	'clouds'	—
/ht-/	/'htam/	'he was interested'	—
/hm-/	/'hmuum/	'worries'	—
/hn-/	/'hnaaya/	'here'	—
—			/hy-/ huge
/hw-/	/'hwaaya/	'very much'	/hw-/ which ⁷
/hb-/	/'hbaal/	'ropes'	—
/ht-/	/'htaaŋ/	'he needed'	—
/hc-/	/'hčaaya/	'a tale'	—
/hj-/	/'hjaara/	'a stone'	—
/hs-/	/'hsaab/	'account'	—
/hz-/	/'hzaam/	'belt'	—
/hs-/	/'hsaan/	'horse'	—
/hm-/	/'hmaar/	'donkey'	—
/hl-/	/'hlaywa/	'pretty' (fem.)	—
112	/hr-/	/'hraam/	'blanket' ^{nowhere}
/hy-/	/'hyaa'tiin/	'walls'	—
/9d-/	/'9daal/	'equal to'	—
/9t-/	/'9tuur/	'perfumes'	—
/9j-/	/'9juul/	'calves'	—
/9f-/	/'9faat/	'a sound produced with the mouth'	—
/9d-/	/'9daam/	'bones'	—
/9z-/	/'9zayza/	(name of a bone used for magic purposes)	—
/9m-/	/'9maara/	(name of a town)	—
/9n-/	/'9naad/	'obstinacy'	—
/9l-/	/'9laa'liig/	'baskets'	—
/9r-/	/'9raak/	'quarrel'	—
/9y-/	/'9yuun/	'eyes'	—
/mp-/	/'mpawdir/	'has powdered'	—
/mb-/	/'mbayyin/	'is seen'	—

7. In some dialects 'which' occurs with simple /w/.

/mt-/	/'mtaañ/	'thick' (plu.)	—
/md-/	/'mdañbal/	'round'	—
/mṭ-/	/'mṭaššar/	'scattered'	—
/mk-/	/'mkassir/	'he has broken'	—
/mg-/	/'mgaadi/	'beggars'	—
/mk-/	/'mkaa'biil/	'in front of'	—
/m?-/	/'m?ammin/	'he has insured'	—
/mč-/	/'mča'liib/	'dogs' (a swear word)	—
/mj-/	/'mjaa'niin/	'crazy' (plu.)	—
/mf-/	/'mfaa'tiñ/	'keys'	—
/mθ-/	/'mθanni/	'he has seconded'	—
/md-/	/'mdammid/	'he has dressed (a wound)'	—
/ms-/	/'msaafir/	'has has travelled'	—
/mz-/	/'mzayyin/	'barber'	—
/mš-/	/'msogar/	'certainly, assured'	—
/mš-/	/'mšaañir/	'he has consulted'	—
/mx-/	/'mxabbal/	'crazy'	—
/mg-/	/'m'galli/	'has raised the prices'	—
/mh-/	/'mha'fiif/	'fans'	—
/mh-/	/'mhallabi/	(a sweet dish)	—
/mθ-/	/'mθabbi/	'he has filled'	—
/mn-/	/'mnaasib/	'suitable'	—
/ml-/	/'mlawan/	'colored'	—
/ml-/	/'mlattiñ/	'he has licked'	—
/mr-/	/'mraaya/	'mirror'	—
/my-/	/'myuuza/	'tables'	/my-/ music ^b
/mw-/	/'mwaa'ñiin/	'dishes'	—
/nb-/	/'nbaawiñ/	'we look'	—
/nt-/	/'ntuub/	'we repent'	—
/nd-/	/'ndaari/	'we take care of'	—
/nṭ-/	/'nṭahhir/	'we purify'	—
/nk-/	/'nkawwim/	'we pile up'	—
/ng-/	/'nguuñ/	'dried apricots soaked in water'	—
/nk-/	/'nkaamir/	'we gamble'	—
/n?-/	/'n?ammin/	'we trust'	—
/nč-/	/'nčid/	'we work hard'	—
/nž-/	/'nžaddid/	'we renew'	—

8. In some dialects the following also occur: /ty-/ tube, /dy-/ due, /θy-/ thew, /ny-/ new, /ly-/ lute.

/nf-/	/'nfattis/	'we inspect'	—
/nθ-/	/'nθanni/	'we second'	—
/nð-/	/'nðuura/	'alms'	—
/nd-/	/'ndawwij/	'we irritate'	—
/ns-/	/'nsaafir/	'we travel'	—
/nz-/	/'nzuul/	'a swear word'	—
/ns-/	/'nṣuum/	'we fast'	—
/nš-/	/'nšaara/	'sawdust'	—
/nx-/	/'nxaala/	'fine sawdust'	—
/ng-/	/'nguula/	'bastards'	—
/nh-/	/'nhaajir/	'we immigrate'	—
/nh-/	/'nhib/	'we love'	—
/nθ-/	/'nθaal/	'slippers'	—
/nm-/	/'nmuura/	'tigers'	—
/nl-/	/'nlawwin/	'we color'	—
/nr-/	/'nruuh/	'we go'	—
/ny-/	/'nya'siin/	'medals'	—
/nw-/	/'nwaajih/	'we face'	—
/lb-/	/'lbaas/	'pants'	—
/lt-/	/'lti'kayt/	'I met'	—
/lj-/	/'ljaam/	'reign'	—
/lθ-/	/'lθaam/	(a covering for the whole face except the eyes)	—
/ls-/	/'lsaan/	'tongue'	—
/lz-/	/'l'zamit/	'I caught'	—
/lh-/	/'lhaaf/	'quilt'	—
/lθ-/	/'lθaam/	'last year'	—
/ly-/	/'lyoom/	'to day'	—
/lw-/	/'lwiiza/	'Louise' (name of a girl)	—
/lt-/	/'ltaaf/	'kind' (plu.)	—
/lw-/	/'lwaas/	'nonsense'	—
/rd-/	/'rdaan/	'sleeves'	—
/rt-/	/'rtuuba/	'humidity'	—
/rk-/	/'rkab/	'knees'	—
/rg-/	/'rgaag/	'a kind of bread'	—
/rf-/	/'rfuuf/	'shelves'	—
/rs-/	/'rsuuma/	'pictures'	—
/rx-/	/'rxaam/	'marble'	—
/rm-/	/'rmaad/	'ashes'	—
/ry-/	/'ryuug/	'breakfast'	—

/rw-/	/'rwaaya/	'novel, play'	—
/ws-/	/'wsaam/	'medal'	—
/wh-/	/'whaam/	'early pregnancy'	—
/w ⁹ -/	/'w ⁹ uud/	'promises'	—
/wr-/	/'wruud/	'flowers'	—
/yp-/	/'ypawdir/	'he powders'	—
/yb-/	/'ybuu ^s /	'he kisses'	—
/yt-/	/'ytuu ^b /	'he repents'	—
/yd-/	/'yduum/	'it lasts'	—
/yt-/	/'yt iir/	'it flies'	—
/yk-/	/'ykammil/	'he completes'	—
/yg-/	/'yguul/	'he says'	—
/y ^k -/	/'ykaamir/	'he gambles'	—
/y? [?] -/	/'y? [?] ammin/	'he trusts'	—
/y ^ç -/	/'y ^ç id/	'he works hard'	—
/yj-/	/'yjuuz/	'probably'	—
/yf-/	/'yfiid/	'it is useful'	—
/yθ-/	/'yθuur/	'he rebels'	—
/y ^ð -/	/'yðuub/	'it melts'	—
/y ^d -/	/'yðimm/	'he hides'	—
/ys-/	/'ysaa9id/	'he helps'	—
/yz-/	/'yzuur/	'he visits'	—
/y ^s -/	/'ysalli/	'he prays'	—
/y ^š -/	/'yšuuf/	'he sees'	—
/yx-/	/'yxaaf/	'he fears'	—
/yg-/	/'yganni/	'he sings'	—
/yh-/	/'yhuudi/	'a Jew'	—
/y ^h -/	/'yhib/	'he loves'	—
/y ^θ -/	/'y ^θ aamil/	'he treats'	—
/ym-/	/'ymuut/	'he dies'	—
/yn-/	/'ynaam/	'he sleeps'	—
/yl-/	/'yluum/	'he blames'	—
/yr-/	/'yruuh/	'he goes'	—
/yw-/	/'ywajji9/	'it hurts'	—

No three-element consonant clusters occur in Arabic word initially

English three-element consonant clusters occurring word initially

---	/spl-/	splash ⁹
---	/spr-/	spring
---	/spy-/	spume
---	/str-/	string
---	/skl-/	sclerosis
---	/skr-/	screw
---	/skw-/	square
---	/sky-/	scute
---	/smy-/	smew

The Problems

In spite of the fact that the two-element consonant clusters exist in much greater number word initially in Arabic than in English, six of the English two-element initial clusters do not occur in Arabic. The non-existing clusters are: /pw-/, /ky-/, /gy-/, /θr/, /sθ/ and /hy-/. In my experience of teaching English to Arabic speaking students for several years, the tendency has always been (a) to omit the second semi-vowel element in a word like 'huge' and pronounce it /huuj/ after the common Arabic pattern CVVC as in /muut/ 'die', /suuf/ 'see', /ruuh/ 'go,' the medial vowels being /-uu-/; or (b) to insert the vowel /i/ between the two initial consonants and in so doing create a new syllable, as in the word 'pueblo' which is pronounced /pi-'weblo/. This is another common pattern in Arabic as in the words /simiin/ fat, /tiwiil/ long, /bi9iid/ far and /giriib/ near.

Because of the fact that no three-element consonant clusters occur in the Arabic dialect under study, all the American English three-element initial clusters present problems. These are: /spl-/ , /spr-/ , /spy-/ , /str-/ , /skl-/ , /skr-/ , /skw-/ , /sky-/ and /sym-/ . The tendency is, however, to insert the vowel /i/ between the first and the second elements of the cluster with a syllable division after the second consonant, thus giving two syllables in a word like 'street.' Accordingly, 'splash' is pronounced /sip.laaš/ and square /sik.wayr/. These are both predominant patterns in this dialect.

9. In some dialects /sty-/ also occurs as in 'stew.' Harris, *op. cit.*, p. 12.

*Dr. LaDo
is to blame
for
the
vowel
in
square*

A few examples for the first are /min. *saar*/ 'saw', /mif. *taah*/ 'key' and /bis. *maar*/ 'nail,' and for the second are /mis. *tayn*/ 'two combs,' /bin. *tayn*/ 'two girls' and /hin. *dayn*/ 'two Hinds' (Hind is a girl's name).

Two-element Arabic consonant clusters occurring word finally Two-element English consonant clusters occurring word finally

---	/-pt/	apt
---	/-ps/	lapse
---	/-bd/	robbed
---	/-bz/	cabs
---	/-tθ/	eighth
---	/-ts/	blitz
---	/-dθ/	width
---	/-dz/	adze
---	/-kt/	act
---	/-ks/	tax
---	/-gd/	lagged
---	/-gz/	tags
---	/čt/	watched
---	/-jd/	judged
---	/-ft/	left (n.).
---	/-fθ/	fifth
---	/-fs/	laughs
---	/-vd/	lived
---	/-vz/	lives
---	/-θs/	baths
---	/-ðd/	bathed
---	/-ðz/	bathes

---	/-sp/	wasp
---	/-st/	test
---	/-sk/	ask
---	/-zd/	caused
---	/-žd/	roughed
/-xt/ /yaxt/ 'yacht'	---	
---	/-mp/	camp
---	/-mb/	lamb
---	/-md/	seemed
---	/-mf/	nymph
---	/-mz/	alms
/-nt/ /'šbint/ (a kind of garden herb)	/-nt/	ant
/-nd/ /'hind/ 'India; name of a girl'	/-nd/	and
/-nk/ /'bank/ 'bank'	---	
---	/-nč/	pinch
/-nj/ /'sfanj/ 'sponge'	/-nj/	ranje
---	/-nθ/	labyrinth
/-ns/ /'čaans/ 'opportunity; good luck'	/-ns/	glance
/-nz/ /'brunz/ 'bronze'	/-nz/	bronze
---	/-ŋd/	longed
---	/-ŋk/	bank
---	/-ŋz/	things
---	/-lp/	help
---	/-lb/	bulb
---	/-lt/	belt
---	/-ld/	old
---	/-lk/	milk
---	/-lč/	filch
---	/-lj/	bilge
---	/-lf/	self
---	/-lv/	delve

---	/-θ/	health
---	/-ls/	false
---	/-lz/	gules
---	/-lš/	Welsh
---	/-lm/	elm
---	/-ln/	kiln
---	/-rp/	harp
---	/-rb/	barb
/-rt/ /'kaart/ 'card'	/-rt/	art
/-rd/ /'mard/ 'manly;brave'	/-rd/	word
---	/-rk/	bark
---	/-rg/	berg
/-rk/ /'bark/ 'lightning'	---	
---	/-rc/	perch
---	/-rj/	urge
---	/-rf/	turf
---	/-rv/	curve
---	/-rθ/	worth
/-rs/ /'mars/ 'double win in backgammon'	/-rz/	furze
---	/-rm/	arm
---	/-rn/	earn
---	/-rl/	girl
/-d/ /'zayd/ 'name of a boy'	---	
/-yθ/ /'layθ/ 'name of a boy'	---	
/-ys/ /'kays/ 'name of a boy'	---	

Three-element final consonant cluster never occurs in Arabic

Three-element English consonant clusters occurring word finally

---	/-pts/	crypts
---	/-pθs/	depths
---	/-pst/	lapsed
---	/-tθs/	eights
---	/-tst/	blitzed
---	/-dθs/	widths
---	/-dst/	midst
---	/-dzd/	adzed

---	/-kts/	acts
---	/-ksθ/	sixth
---	/-fts/	lifts
---	/-fθs/	fifths
---	/-spt/	clasped
---	/-sps/	wasps
---	/-sts/	tests
---	/-skt/	asked
---	/-sks/	asks
---	/-mpt/	tempt
---	/-mps/	glimpse
---	/-mft/	triumphed
---	/-mfs/	nymphs
---	/-ndz/	sands
---	/-nčt/	pinched
---	/-njd/	changed
---	/-nθs/	months
---	/-nzd/	bronzed
---	/-nkt/	instinct
---	/-nks/	lynx
---	/-nθs/	lengths
---	/-nst/	amongst
---	/-lpt/	helped
---	/-lps/	helps
---	/-lbd/	bulbed
---	/-lbz/	bulbs
---	/-lts/	waltz
---	/-ldz/	holds
---	/-lkt/	mulct
---	/-lks/	calx
---	/-lčt/	filched
---	/-ljd/	bulged
---	/-lfs/	gulfs
---	/-lvd/	delved
---	/-lvz/	delves
---	/-lθs/	tilths

---	/-lst/	repulsed
---	/-lst/	Welshed
---	/-lmd/	filmed
---	/-lmz/	elms
---	/-lnd/	kilned
---	/-lnz/	kilns
---	/-rpt/	excerpt
---	/-rps/	corpse
---	/-rbd/	barbed
---	/-rts/	quarts
---	/-rdz/	cards
---	/-rkt/	worked
---	/-rks/	works
---	/-rgz/	bergs
---	/-r̄ct/	marched
---	/-r̄d/	charged
---	/-r̄ft/	surfed
---	/-r̄fs/	surfs
---	/-rvd/	carved
---	/-r̄t/	unearthed
---	/-r̄s/	bearths
---	/-rst/	thirst
---	/-r̄md/	armed
---	/-rmθ/	warmth
---	/-rmz/	arms
---	/-rnz/	turns
---	/-r̄ld/	world
---	/-rlz/	curls

Four-element consonant clusters never occur word finally in Arabic

Four-element consonant clusters occurring word finally in English

---	/-ksts/	texts
---	/-ksθs/	sixths
---	/-mpts/	attempts
---	/-mpst/	glimpsed
---	/-ndθs/	thousandths
---	/-nkts/	instincts

---	/-ltst/	Waltzed
---	/-lkts/	mulcts
---	/-lfθs/	twelfths
---	/-rpts/	exerpts
---	/-θsts/	thirsts

The Problems

The two-element consonant clusters which exist in Arabic and also in English and therefore do not present a problem are: /-nt/, /-nd/, /-n^j/, /-ns/, /-nk/, /-rt/, /-rd/ and /-rs/. The clusters occurring in Arabic but not in English are: /-xt/, /-rk/, /-yd/, /-yθ/, and /-ys/. Although theoretically the clusters that do not occur in Arabic should constitute a problem, in practice this is not always true. Native speakers of Arabic do not have any difficulty in pronouncing most of the English two-element final clusters not existing in their own dialect. This is also true of two-element English clusters occurring word medially in syllable final position such as /-rk-/ in darkness.

The final clusters occurring in Arabic can be classified into two groups:

- 1) assimilated loan words from other languages such as /-n^j/ in /sfanj/, /-ns/ in /cans/, /-nk/ in /bank/, /-rt/ in /kaart/, /-rd/ in /mard/, /-rs/ in /mars/ and /-xt/ in /yaxt/.
- 2) proper names from classical Arabic such as: /-yd/ in /zad/, /-yθ/ in /layθ/, /-ys/ in /kays/ and /-nd/ in /hind/. /-rk/ in /bark/ is the only word taken from the classical language which is not a proper name, but this is sometimes pronounced /barik/.

In the few cases when the English two-element final clusters are a problem to the Arabic speaker, the vowel /i/ is inserted between the two consonants.

All the three-element clusters occurring word finally present a problem. This is solved by inserting the vowel /i/, again, between the last two consonants creating a syllable division before the first element of the cluster. So, /tests/ becomes /tes.tis/.

All the four-element final clusters constitute a problem. In pronouncing them, however, the tendency is to insert the vowel /i/ between the last two consonants and create a

syllable division after the first two elements of the original cluster. /tempts/ therefore is pronounced /temp.tis/.

*Medial Combinations*¹⁰

Sequences of two or more consonants occur in medial position within an utterance. They are termed medial because they can be made up of final and initial clusters coming together in connected speech. Clusters are close-knit sequences of consonants within an utterance while a combination of consonants can be made up of single consonants such as /n-d/ in 'tender', or sequences of clusters in consecutive syllables such as /n-fl/ in 'main floor'.

"The monosyllabic words present no problem in regard to consonant clusters since the clusters in such words have a clearly defined initial or final position in relation to the syllable. It is in connected sequences of words in normal speech where the difficulty arises."¹¹

Because the problems obtained at syllable borders within words are analogous to those occurring at word borders they have been grouped together as medial combinations. The medial combinations occur in very great numbers. In Miss Wallace's recorded material "695 separate combinations make up the total of 5362 occurrences of medial combinations."¹²

Miss Wallace has classified the medial combinations in her data into seven separate groups according to the final and initial position:

<i>English</i>	<i>Arabic</i>
1. /C-C/ /t-m/ get me	/C-C/ /t-h/ /sit'hnaa/ / 'Miss Hana'
2. /C-CC/ /t-θr/ get through	----
3. /C-CCC/ /n-str/ been struggling	----
4. /CC-C/ /ts-j/ it's just	/CC-C/ /ns-m/ /čans'maaku/
	'there is no luck'
5. /CC-CC/ /st-θr/ just through	----
6. /CCC-C/ /str-i/ first forty	----
7. /CCC-CC/ /rkt-θr/ worked through	----

10. The list of medial combinations is from Betty J. Wallace's dissertation *A Quantitative Analysis of Consonant Clusters in Present-Day English*, Ann Arbor, 1950, pp. 79-109.

11. *Ibid.*, p. 22.

12. *Ibid.*, p. 81.

Simplification of Final Clusters in English

Two kinds of reduction occur in English:

- 1) one segment from the sequence is omitted;
- 2) syllabification is used in which the final consonant of a word is transferred to the initial vowel or diphthong of the next word forming a syllable with it. This process simplifies the final cluster.

Simplification by omitting one segment in normal speech

<i>Full Form</i>	<i>Reduced Form</i>	<i>Examples</i>
/nt/	/n/	don't have
/nd/	/n/	find something
/st/	/s/	just give
/ld/	/l/	told me
/kt/	/k/	fact we

<i>Full Form</i>	<i>Reduced Form</i>	<i>Examples</i>
/rst/	/rs/	first year
/skt/	/sk, st/	asked for
/kst/	/ks/	next place
/kts/	/ks/	districts that
/ksθ/	/ks, kθ/	sixth

According to Miss Wallace "this reduction follows a systematic pattern:

"The final stop consonant is often dropped from sequences of 2 or 3 consonants in final position in the syllable. When 2 stop consonants appear consecutively in final position (e.g., /eskɪt/ it is sometimes the stop consonant preceding the final which is omitted. When 2 fricative consonants appear in a sequence as in /sɪksθ/ it is difficult to perceive which fricative is retained. The word is sometimes heard as /sɪks/ or /sɪkθ/".¹³

13. *Ibid.*, p. 103.

Simplification by syllabification also occurs in English:

Full Form	Phonetic Syllabication	Examples
/nd/	/n-d/	kind of
/st/	/s-t/	just after
/kt/	/k-t/	talked about
/nt/	/n-t/	account of
/sk/	/s-k/	ask him
/rkt/	/rk-t/	worked it

In this process the final consonant in a syllable moves into the initial position in the following syllable.

(1) Reduction by omission in the Baghdad dialect occurs in a few occasions:

Full form of phonetic data	Full form	Reduced form	Examples
/šbint'maaku/	/nt/	/n/	/šbin'maaku/ 'there is no /šbnt/'
/kaart či'biir/	/rt/	/r/	/kaar či'biir/ 'a large card'
/9ind' ?ummi/	/nd/	/d/	/9 di?ummi/ 'with my mother'
/bank' hilu/	/nk	/n/	/ban' hilu/ 'a nice bank'

Here also the final stop consonant is always dropped except in one case where the first element of the cluster is an alveolar nasal. This, however, occurs sometimes with the glottal stop of the next word dropped /9in.dummi/ but this process is not purely omission.

(2) Omission is a common phenomenon in medial combinations occurring together with syllabification. This always occurs when the first element of the second word is a glottal stop.

Full form of (1)	Full phonetic data	reduced form	Example
/naf'nuuf 'ummi/	/f-?/	/f/	/nafnuufummi/ 'my moth- er's dress'
/čaans 'ah. mad/	/ns-?/	/ns/	/čaans'ah. mad/ 'Ahmad's luck'
/bayt'a'buuya/	/t-?/	/t/	/bayta'buuya/ 'my father's house'

From the above examples it is clear that in a combination of /c-?/ or /CC-?/ it is always the glottal stop that is omitted. When this segment disappears the vowel after it is left open, thus, attracting the last consonant of the first word, it forms a syllable with it in which the consonant after the vowel is the last segment. So we get in /čaans ?aHməd/čaan.səH.məd/.

The Problems:

The non-existing medial combinations in Arabic are: /C-CC/, /C-CCC/, /CC-CC/, /CCC-C/ and /CCC-CC/.

(1) The pattern /C-CC/ presents a problem both occurring within a word as in 'children' which is pronounced /'ciliđ.rin/ and in a combination of words as in 'just through' which is pronounced /jas.tiθru/. This is true not only of English combinations of words but of Arabic as well. /čam ktaab/ 'some books' is pronounced in normal speech by inserting the vowel /i/ between the last consonant of the first word and the first consonant of the second word, thus producing /ča.mik.taab/.

(2) The pattern /CC-CC/, although theoretically possible never occurs in normal speech. /hind ɬaywa/ 'Hind is pretty' is pronounced /hin.dih.ɬay.wa/. So, any combination in English after the pattern /CC-CC/ is treated in the same method.

(3) The patterns /C-CCC/, /CCC-C/ and /CCC-CC/ never occur in Arabic and they always constitute a problem.

Conclusion

	English	Arabic
Initial: 2-element clusters	40	335
3-element clusters	9	0
Final: 2-element clusters	73	14
3-element clusters	75	0
4-element clusters	12	0

(1) The table above helps us realize that for an Arab. student learning American English, the initial two-element clusters do not present a great problem. The difficulty lies in the

area of three-element clusters both initial and final, and also the four-element final clusters.

- (2) In connected speech in Arabic, even a possible combination such as /C-CC/ undergoes a change by inserting the vowel /i/ between the original two-element cluster, thus creating a new syllable and releasing the cluster.
- (3) The English clusters which do not exist in Arabic are dealt with in the same manner, the inserted vowel being always /i/.
- (4) In teaching English to Arab students special exercises should be given in order to practice producing the non-existing clusters.

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THE DISTRIBUTION OF SOME CONSONANT ALLOPHONES IN SPANISH

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In dealing with consonant allophones in Spanish, I am limiting this study to (1) the distribution of the allophones of the phonemes /n/, /r/, and /ṛ/ and (2) the junctures at which these allophones occur in the dialect areas of Spanish America.

As a teacher of English to Spanish-speaking students I have encountered many unexplained errors in their pronunciation of English. Why, for example, do so many of them say, "Give me that [wəŋ], *one.*" or "[ðəŋ], *then I went to the university,*" using the velar [ŋ]? An excellent analysis of Spanish phonetics has been made by Tomás Navarro Tomás, explaining the type of assimilation that occurs to make up the allomorphic variants of, for example, such a morpheme as *un*. Before the valars /k,g,h/, the /n/ assimilates and becomes [ŋ]; but this does not explain the pattern of my South American students, where velar [ŋ] occurs before pause and at word boundary within a phrase when the following word begins with a vowel and no assimilatory processes are present.

Amada Alonso, in "Una ley fonológica del Español," (*Hispanic Review*, 1945), set up the phonemic structure of Castilian Spanish. In his only reference to the nasal allophones before pause, he stated that he regarded as significant only intentional articulations operating at a point where there is a contrast with other phonemes. Both the final nasal and the /r/ and /ṛ/ phonemes, except between vowels, were "neutralized"; that is, they occurred with loss of opposition, and were therefore inoperative as phonemes in Alonso's analysis. However, the [ŋ] of my Spanish students is perfectly regular in its occurrence, and the pattern is automatically transferred to English in the speech of new students. Investigation seemed advisable.

In working with the selection of test materials, it was discovered that comic strips offered an excellent opportunity for getting natural sequences of speech since the dialogue offered

normal sentence types, while the pictures and humorous situations afforded a distractor and helped the informants to forget their "reading" pronunciations. So two "Pepitas", (they are Dagwood comic strips in a Spanish version), and a poem by Gabriela Mistral, "Rondas de Niños", (for the "r" contrasts), were read by all the informants and recorded on tape. The detailed breakdown of the results is contained in the Distribution Table at the end of this article.

This work, begun almost a year ago under the guidance of Dr. Ernest F. Haden, is still in progress. Other studies on the same problem have recently become available. Most of the studies, it seems to me, are inadequate in one respect. Although the investigators use junctures to assist them in their analyses, they do not present clear definitions of what they mean by "open" or "close" juncture; and when one is working on morpho-phonemic problems, such phenomena as junctures must be clearly defined.

However, a clear analysis of juncture was presented by Dr. Haden in a paper entitled "Suprasegmentals in Spanish" which was read as a Forum Lecture at the Sumer Linguistic Institute in Ann Arbor, Michigan, in 1956. Dr. Haden proposed names for three types of juncture which operate structurally in Spanish. They are based on the following definition for juncture: "A transition point involving time." Using this working definition, juncture can be a slowing down of tempo, or, in contrast, it may be a sustained tempo at a transition point with a pitch signal associated. It may be a slight lengthening or a break which is signalled by failure to assimilate, or, in contrast, it may be no break at all at a transition point. The three junctures are:

(//) 1.a. *Andante*, characterized by a change of pitch at the transition point and no perceptible lengthening. The tempo is sustained throughout the phrase which it terminates. Assimilation across the transition point is common here.

Ex. 1. "Bien // Pero primero iré a la cocina..."

Here we find assimilation occurring, so that in this environment the /n/ assimilates to bilabial /m/ before following bilabial.

(#) 1.b. *Andante Final*, characterized by a change of pitch at the transition point, followed by silence. Here, then, there

can be no assimilation with the following phonemes because of the silence which follows. The tempo is sustained throughout the phrase which it terminates.

Ex. 1. "Bien # Pero primero iré a la cocina..."

Here there is no assimilation at the transition point.
(We cannot predict whether # or // will occur at this point.)

(--) 2. *Lenta*, in contrast to *Andante Final*, is characterized by a retardation of the final phonemes, especially the post-tonic vowel. Second, there is no change in pitch with this juncture. In contrast with *Andante*, there is no assimilation at this transition point.

Ex. 1. "Bien -- Pero primero iré a la cocina..."

Note that any phrase carrying primary sentence stress, that is, a major stress group, can be terminated by either //, #, or --. It is not possible to predict which will occur here. Different speakers gave different junctures at this transition point.

(^) 3 *Interior*, is characterized by neither a pitch change nor a retardation of tempo. It is marked by failure to assimilate to the following phoneme across the transition point and a short increase in total time. It is a short interruption of the normal assimilatory processes which are so common across word boundaries in Spanish.

Ex. 1. "Tu actuación^fué realmente admirable, Lorenzo."

Here we would not expect the occurrence of //, #, or --. This juncture occurs after minor stress groups, those which do not bear the primary sentence stress.

The present work on Spanish dialects has revealed that in many areas the [ŋ] occurs before *Andante Final*, *Lenta* and *Interior*, and also occurs regularly at a transition point which cannot be handled by these three junctures. Therefore the setting up of a fourth juncture is proposed for these dialects:

(°) 4. *Articulatoria*, characterized by its occurrence at word boundary within a minor stress group. It contrasts with *Andante* by having no pitch change, with *Lenta* by having no perceptible retardation of the final phonemes, with *Interior* by having no increase in total time, and by its occurrence within a minor

stress group. Thus the only audible signal for this type of juncture is the occurrence of a particular articulatory feature of a consonant at word boundary when this consonant is preceded and followed by a vowel.

- Ex. 1. "Ven ^o a tomar café."
- 2. "... un ^o extremo de la cuerda..."
- 3. "Que bien ^o actúa!"

All of the occurrences of /n/ before ^o become [ŋ] at this juncture point.

Out of a total of sixty-four informants from nineteen different countries of Central and South America who were tested for the [ŋ] allophone, nineteen speakers from six countries had no occurrences of the [ŋ] before any of the four types of juncture. Four of these areas, --Chile, Mexico, Spain, and Texas,--had no speakers who used it in any of these positions. Seven speakers from six countries had [ŋ] regularly only at *Andante Final*, although it might occur at *Lenta*, and *Interior*.

What is of great significance for us is the fact that the majority of the speakers, --thirty-eight in twelve countries--, had regular occurrences of [ŋ] at *Andante Final*, *Lenta*, *Interior*, and *Articulatoria*.

- Ex. 1. b. "Estoy tomando lecciones de [trombón] #
- 1. b. "[bien] # Pero primero iré a la cocina..."¹
or
- 2. "[bien]-- Pero primero iré a la cocina.."
- 3. "Tu [aktwasióŋ]² fué realmente admirable,"
- 4. "Qué [bien] ^o actúa."
- "[kerian] ^o hacerlo."

It is tempting to posit phonemic status for the [ŋ] in the twelve dialect areas where we have found it occurring regularly at *Articulatoria*, because here the language provides contrasts such as those suggested by O. L. Chavarria-Aguilar, in an article entitled "Phonemes of Costa Rican Spanish."² He uses the sequences: "enojo" [enohoh] and en ojo", ..(enohoh] as evidence for the phonemic status of [ŋ], --mainly because in this

1. If *Andante* occurs here, assimilation will occur. Thus: "[bien] // Pero..."

2. *Language* 27, (1951) 248-253.

position there is no audible time signal such as we find with *Interior*. The sole feature of contrast in opposition to /n/ seems to be the articulatory feature, [η]. According to Chavarria-Aguilar, the [η] is therefore a phoneme in the dialects where it occurs in this position.

On the other hand, Ruth L. Hyman, in the September (1956) *Hispania*, in article entitled "[η] as an Allophone Denoting Open Juncture," rejected phonemic status for [η] even though her final statement seems to be an excellent argument for the opposite conclusion: "To reinforce the objective evidence for considering [η] as a "junctural allophone" of /n/, may be added the subjective "feeling" of several of the informants that this particular speech sound makes the distinction between a phonemic sequence divided between two words and the same sequence occurring within one word."³

However, Miss Hyman was correct in calling [η] an allophone, although the lack of a clearly defined set of junctural phonemes confused her analysis. On the other hand, Chavarria-Aguilar failed to note the significant distribution of [η] which was the conditioning factor. Only [n] occurs in absolute initial position or within a word: [η] occurs only at word boundary. The two allophones are in perfect complementary distribution. It therefore seems necessary to regard [η] as an allophone of /n/, not as a phoneme, since a phoneme that occurs only at word boundaries, as against another that occurs in other positions would confront us with too improbable a situation. Since [η] is regularly conditioned by the junctures designated as *Andante Final*, *Lenta*, and *Interior*, it seems inescapable to regard it as a condition of a fourth type as well--that which I have called *Articulatoria*. Thus we may say that [η] is a pre-junctural allophone of /n/, even though one type of juncture involves no time lag or pitch variation.⁴

Fifty informants from sixteen countries participated in the study of the phonemes /r/ and /r̄/, and the distribution of their

3. *Ibid.*, 297.

4. This distribution of [η] serves to help reduce a number of ambiguities which are common to Spanish. For example, in Mexican Spanish, where /n/ is the only nasal at word boundary before a vowel, such sequences as "un hombre", and "un nombre" are ambiguous, since phoneticians such as Joseph Matluck, (*La Pronunciación en el Español del Valle de México*) testify to only one "n" articulation for the two "n's" at word boundary in the second phrase. But in dialects such as that of Peru, where the [η] occurs at *Articulatoria*, the first sequence is [unόmbre], the second, [unόmbre].

allophones. Of these fifty, twenty-eight had the contrast between the two expressed by a single tap for /r/ between vowels, and a multiple trill for /r̄/ in the same environment. For absolute initial, initial after vowel in preceding word final, or preconsonantal position within a sequence, however, many of these informants had a fricative [ɹ], as [ɹio] or [pomaɹ].

Twenty informants from nine countries had the same contrast expressed by a single tap for /r/ and a fricative [ɹ] for /r̄/ between vowels, (in addition to having the fricative in all the environments given above) i.e. "caro / carro" was [karo] / [kaɹo],

Two informants from Puerto Rico had uvular [R] in all the above-stated environments for /r̄/, i.e. [aro] / [karo] etc.

The tapes of twelve of my informants were selected for spectrographic analysis to aid in determining the characteristic feature of the contrast in dialects where the "single tap versus multiple tap" contrast did not exist. Segments of the speech of four informants with the multiple trill, seven with the fricative, and one speaker with the uvular articulation were analyzed. The spectrographs revealed the fact that for /r̄/, some speakers regularly used a fricative composed of a single tap plus friction. Others had only a long fricative articulation. For /r/, however, all twelve speakers had a single tap. The record of one speaker from Medellin, Colombia, had to be omitted from the final tabulations, since her spectrographs showed absolutely no contrast at all between /r/ and /r̄/. Testimony to the fact that such loss of opposition is not uncommon in Columbia is found in a study by Luis Florez, *La Pronunciación del Español en Bogotá*, (1951), paralleled by reports of the same situation in the speech of some social areas of Havana, Cuba.

The records of the /r/ and /r̄/ for the other eleven speakers were measured to see if length was not the significant signal of contrast, intervocally. It was found that for all speakers the single tap averaged 2.5 centi-seconds, while the /r̄/ (whether trilled, fricative, or uvular) averaged 6.8 centi-seconds, almost three times as long. These records give convincing evidence that the real signal for this phonemic contrast, in the over-all structure of Spanish, is *length*.

The problem of how to assign the various allophones of /r/ and /r̄/ has been handled in various ways in the past. Tomás Navarro Tomás assigned anything spelled with two 'r's" to the /r̄/, and anything spelled with one, to /r/, except the initial-of-word "r". Amado Alonso, when describing the occurrences of

fricative [x] in an article entitled "Observaciones Sobre "rr", "r", y "l",⁵ assigned the occurrences which were initial and final of word to /r/. But the occurrence of the [x] as an allophone of /r/ between vowels within a word, contrasting with the single tap in the same position, proves that such friction is a part of the /r/ complex, and it is impossible then to assign the other occurrences of [x] to the /r/. To avoid letting two separate phonemes share the same allophone, all other occurrences of [x] must be assigned to the /r/ also. The allophonic pattern of distribution is then clearly the following:

- I. /r/ - the single tap with one allophone, [r], - occurs:
 - a. Between vowels within a word,
 - b. Between vowels at word boundary, *Articulatoria*, where it marks final of word.
 - c. Final in a consonant cluster.
- II. /r/ - with allophones [r̚], [x], [R], and voiceless allophones of all three, - occurs:
 - a. Between vowels within a word,
 - b. Between vowels at word boundary, *Articulatoria*, where it marks word initial.
 - c. After *Interior* where it marks word initial.
 - d. At absolute initial position.
 - e. At utterance final position, that is, at the junctures *Andante Final*, and *Lenta*, in voiceless allophones.
 - f. Before a consonant, either voiced or voiceless.

It is clear that in the dialects where it occurs, the fourth juncture, *Articulatoria*, is a useful concept here as well as in dealing with the occurrences of [ŋ]. However, we must remember that here we are dealing with occurrences of two separate phonemes at a juncture point, while in the former case we were dealing with allophones of the same phoneme /n/. Thus, /r/ serves to mark word final in a sequence when a vowel follows, while /r̚/ serves to mark word initial when a vowel precedes it. Note the contrast: "dar ojas" / "da rojas" = [dar ⁰ ójas] / [da ⁰ rójas].⁶

5. *Bibl. Dial. Hispano-Americana*, V. VI, Instituto de Filología, Buenos Aires, 1940, pp. 292-297.

6. But in utterance final the same morpheme, /dar/ will be [daR̚] or [daR] or [dax], or voiceless allophones of any of these three, as in: "hojas que dar."

Now I would like to consider some of the possible applications of these facts in the teaching situation. First, the [ŋ] and the [χ] do not appear to be sub-standard or archaic in Spanish America, since my informants were young, well-educated people ranging in age from eighteen to forty. They all came either from the capital cities of their respective countries or from another city of comparable size, since it is only in such population centers that good education and university degrees can be obtained. All the informants have at least a high school education. Most of them had finished one college degree, had practiced their profession for some time, and were in the United States for special graduate study. Among them there were graduate nurses, engineers, doctors, dentists, social workers, and even one university professor (completely equipped with both [ŋ] and [χ]). Thus their speech must be regarded as the modern, educated speech of their respective dialect areas.

Therefore, we are not dealing with *apatois* as against a standard language, but with deviations in the pronunciation of the standard language in large and important areas. Most of the Spanish speakers we teach are Spanish-Americans. Most of our natives who learn Spanish well have to communicate with Spanish Americans. Therefore, practical considerations demand that we learn all we can about the phonemes of Spanish and the distribution of their allophones in Latin America.

Country	City	Interior of Word			At all Junc- ture				
		/f/ = [F] VrrV	/r/ = [r] VrrV	/F/-[R] VrrV	n # = [n]	n-- = [n]	n^ = [n]	n^o = [n]	/g/ = [g] #1--/g/o
1. Bolivia (1)	Potosí	1			1	1	1	1	
2. Chili (3)	Santiago (2)		2						2
	Tufagasta (1)	1							1
3. Costa Rica (5)	Heredia (1)		1		1	1	1	1	
	San José (4)		4		4	4	4	4	
4. Colombia (4)	Bogotá (3)	1	2		1	-	-	-	2
	Medellín (1)		No r/F contrast						1
5. Ecuador (5)	Guayaquil (2)	1	1		2	2	2	2	
	Río Bamba (1)		1		1	1	1	1	
	Quito (1)	1			1	1	1	1	
	Guitarro (1)		1		1	1	1	1	
6. El Salvador (2)	El Salvador (2)	2			2	2	2	2	
7. Guatemala (2)	Guatemala City (2)	2			2	-	-	-	
8. Honduras (4)	Tegucigalpa (2)	1	1		2	2	2	2	
	San Pedro Azula (1)	1			1	1	1	1	
	Santa Rosa (1)		1		1	1	1	1	
9. Nicaragua (4)	Managua (4)	4			4	3	3	3	
10. Panama (1)	Panama City (1)	1			1	1	1	1	
11. Peru (6)	Lima (2)	2			2	2	2	2	
	Talara (1)	1			1	1	1	1	
	Equito (1)	1			1	1	1	1	
	Chimbote (1)	1			1	1	1	1	
	Piura (1)	1			1	1	1	1	
12. Puerto Rico (3)	Ponce (2)		1	1	2	1	1	1	
	Río Piedras (1)			1	1	1	1	1	
13. Spain	Madrid (1)	1							1
	Cartagena (1)	1							1
14. Texas (6)	San Antonio (6)	4	2						6
15. Uruguay (1)	Montevideo (1)		1		1	-	-	-	
16. Venezuela (1)	Caracas (1)	1			1	1	1	1	
		28	19	2	36	30	30	30	14

II Record for /n/ [ŋ] only	n # = ŋ	n-- = ŋ	n^ = ŋ	n^o = ŋ	n = n at #/--/^/o
1. Colombia (2)	2	2	2	2	
2. Cuba (3) Matanzas (3)	3	3	3	3	
3. Ecuador (1) Quito (1)	1	1	1	1	
4. Los Canarios (1)	1	1	-	-	4
5. Mexico (4)					
6. Panama (1)	1	1	1	1	
7. Puerto Rico (1)	1	1	1	1	1
8. Venezuela (1)	1	1	1	1	
Total	9	9	8	8	5

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A CHECK-LIST OF TESTS FOR VARIOUS TYPES
OF PROFICIENCY IN A FOREIGN LANGUAGE*

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World War II has already receded a dozen years into the past, and it may seem like a piece of gratuitous archaeologizing to dredge out of some ancient files a report sent to the proper authorities of the Army on the procedures followed in the Army Japanese Language School at the University of Michigan, in which large numbers of soldier trainees "took" varying amounts of "intensive" Japanese. However, the procedures adopted in teaching this service personnel have proved extremely useful in these postwar years; as an example, the oral approach to the teaching of spoken Japanese, tried and refined during the war years, has given new life to civilian teaching.

The service personnel attending the Army Japanese Language School were on the whole students of high caliber with perhaps an average of two years of college training. Keenly competitive as far as ratings in their classes were concerned and highly motivated in view of the critical nature of the intelligence work for which most of them were headed, they were generally "easy to teach" and "quick to learn." Necessarily, their standings in sections and groups depended not only on their daily work but on the battery of tests to which they were subjected. The report to which we have referred contains a listing of the types

*Editors' Note: The author, Professor of Japanese and Chairman of the Department of Far Eastern Languages and Literatures at the University of Michigan, here recalls the test-types given to service personnel in the University's Army Japanese Language School, of which he was director during World War II. His description of the spoken language program conducted in the Army Japanese Language School is found in *Language Learning*, 1, 2 (April, 1948), 11-23. The author refers interested readers who might wish to pursue the entire matter of tests for various proficiencies in a foreign language to Professor Robert Lado's *Annotated Bibliography for Teachers of English as a Foreign Language*. Washington, D. C., the U. S. Office of Education, 1955.

of test used in evaluating the trainees, together with comments on the general efficacy of these tests. Perhaps these test-types need refinement. Perhaps, for the particular purposes for which they were administered, some may be better than others. But when many series of tests had to be given and a variety of tests was required in order to add to the freshness of testing procedure, a degree of ingenuity became essential. The following description of the testing program in the Army Japanese Language School is thus written with a real sense of gratitude for the preparation of tests of various kinds and the administering of these tests done by the 105 members of the teaching staff who in the course of three years taught some 1600 officers and men of the United States Army and Navy.

1. *The system of examinations: introduction*

The examinations were given to determine the total proficiency of any student at any time in the spoken or written language, his relative standing in his class, and his week-by-week performance. Upon entering the Army Japanese Language School, the students of each class were given a placement examination. The results of this examination, combined with a consideration of each student's previous training in Japanese, helped to determine which section a student was placed in. Thereafter, weekly examinations were given on his work, with one of the two hours scheduled each Saturday morning devoted to a test on his written language work for the week, and the second hour devoted to an examination either on his spoken language work or on his work in the reading materials. The marks earned in the weekly examinations often resulted in a change in section assignments. Thrice a year, comprehensive examinations taking up a total of two consecutive days, and therefore eight hours, were given, and in many cases resulted in promotions and demotions to other sections and to other groups, each group consisting of two or more sections following the same program. Spot examinations, usually in the nature of a composition or of a piece of translation assigned to all the members of a class, or to several groups together, as a basis for the comparison of groups, were also given. Since the daily dictation work likewise was conducted in an atmosphere of high tension, the impression given, that there was a great deal of testing, is completely correct. Despite the possibility that certain students became grade-conscious under such a system, the highly competitive spirit created by the constant testing was very much like that of an Officer Candidate School. The weekly grades determined whether or not a student went to the Supervised Study periods. Since there was a tendency to regard these periods as

a curtailment of liberty, at least of the liberty of studying in one's own room in comfort, the grading became very important to most students.

2. What total proficiency in the Japanese spoken language meant.

Ideally stated, the kind of control of the spoken Japanese language which the School wished to develop in its students was that of native speakers who possessed the same intelligence and education. The ideal naturally was bilingualism in English and Japanese. In a memorandum addressed to the teachers and students of the School, the following ideals were stated as goals toward which the spoken language work was directed:

- a. Closeness to the norms of native pronunciation; the individual sounds, the accentuation, and the intonation would in good speech duplicate a native's control of the same.
- b. Correctness (accuracy) in the use of vocabulary, phrases, and grammar forms, in the sense that a native's usage is duplicated.
- c. Fluency as shown by quickness in comprehension, readiness in expression and response, the ability to sustain conversation to the fullest limits required in any language situation.

Naturally, these ideals can be achieved only after a long period of study and experience; at any single moment the proficiency shown by any student must be measured in terms of the materials that he has covered and the total experience that he has had with the language that he is studying within the limits of the materials and training, his proficiency may still be graded; the School, therefore, announced the following definitions of the grades that were given for the spoken language work:

- a. A - Excellent
 - (1) Responses quick.
 - (2) Pronunciation and use of vocabulary, phrases, and grammar approximate native norms or through several sentences may even be mistaken for a native's.
 - (3) Speech fluent and sustained with no hesitation within the usual phrase limits; speech characterized by wide range of vocabulary, idioms, and grammar, and deft use of the same.
- b. B - Good
 - (1) Responses quick.
 - (2) Pronunciation, vocabulary, phrases, and grammar deviate from native norms.

- (3) Speech comparatively fluent but marked by occasional hesitations, due at least in part to not knowing or not controlling a wide range of vocabulary and phrases; limits evident in the deft and varied use of vocabulary, phrases, and grammar forms.
- c. C - Fair
 - (1) Responses not quick, and in rare instances may be wrong.
 - (2) Pronunciation, vocabulary, phrases, and grammar deviate quite markedly from native norms.
 - (3) Speech generally understandable but halting; range of vocabulary, phrases, and grammar narrow.
- d. D - Poor
 - (1) Responses definitely slow, sometimes wrong.
 - (2) Pronunciation and use of vocabulary, phrases, and grammar definitely poor.
 - (3) Speech very hesitant and often not understandable; sustained, intelligible conversation not possible.
- 3. E - Failure
 - (1) Responses and expression too faulty to be intelligible.
 - (2) Pronunciation and use of vocabulary, phrases, and grammar show almost complete lack of control.
 - (3) Speech very much confined to ordinary greetings and elementary phrases; sustained conversation not possible.

Plusses were added to the above grades for superior performance, minuses were added for inferior performance.

3. *What to test for in the spoken language.*

In attempting to arrive at a judgment and evaluation of any student's control of spoken Japanese, the attention may be focused on the following elements of his speech:

- a. His ability to talk; the ability he shows to sustain a conversation to its ultimate length, initiating it with questions or statements, responding as needs be; his fluency.
- b. The degree of his ability to comprehend what others say.
- c. His pronunciation.
- d. His control of vocabulary.
- e. His control of grammar forms.

Teachers soon find, and an analysis of the tests conducted in the School show, that in trying to test for oral fluency, the other

factors mentioned invariably come in. Most tests examine a student's proficiency in more than one phase of linguistic competence, and more than one aspect of language proficiency is usually tested at once, with a grade or rating given on the total impression. The intrusion of the subjective element, the giving of poor tests, or poor administration of good tests may all result in evaluations that do not accurately describe a student's competence. Hence, few tests can tell the full story of a student's proficiency; several tests are necessary. The following paragraphs will describe, however, the testing procedures used to measure each element of speech mentioned in the above list.

4. *Tests on comprehension and the ability to express oneself in Japanese.*

In testing the students of the Army Japanese Language School for comprehension and the ability to talk, the teacher often took an active part, since it was he who usually began by directing in Japanese the oral responses which the students were to make, and it was he who asked the questions that the students were to answer. The students listened and responded, as directed, in these examinations. In his grading the teacher considered promptness in answering, correctness in the use of vocabulary and grammar items, the choice of words, pronunciation, and completeness in the answers. The students in these examinations listened to the teacher's directions and questions and responded as requested.

a. The teacher specified vocabulary items and phrases, and had the students make sentences with them. The answer was sometimes in the nature of an explanation, as of a process or procedure.

b. The teacher specified both the vocabulary and the grammar forms that were to be used and had the students make sentences with them.

c. The teacher specified a vocabulary item, and had the student give its opposite.

d. The teacher specified a vocabulary item, with or without a specified grammar form, and had the student make a question containing it, which a second student had to answer.

e. The teacher had two or more students converse with each other on a given topic.

f. The teacher had the students discriminate between two things that are similar, such as given names and surnames.

g. The teacher had the students describe what something was, what was in a picture, what was in a magazine, etc.

h. The teacher had the students give reasons why some action was difficult.

i. The teacher started a statement and had a student complete it orally.

j. The teacher asked a question and had the student answer it as fully as possible. The questions could be so phrased as to demand specific answers arising out of the materials used in the lessons learned during the preceding week or month. Thus the teacher could ask, "Isn't Mexican cooking on the sweet side?" and the student might be expected to answer, "No, it is on the hot (peppery) side."

k. The teacher asked sentences in sequence, that is, with an initial question followed up by others. Complete answers were asked for; the student carried on a conversation with the teacher. The questions

(1) could illustrate the grammar forms learned during the preceding week. The phrasing of the question could be such that the students would have to answer in various styles, that is, using honorific or humble forms, abrupt forms, polite forms, or the forms of informal speech.

(2) could cover the materials taken up during the immediately preceding "Speech Hours," including dialogues, compositions, and movie reviews. The contents of the materials used during the Speech Hours had to be well known if the answers were to be given high grades.

l. The teacher started with a series of questions that were grouped in terms of difficulty in answering. Usually four groups were used, the easiest questions marked D, the next harder marked C, the next B, and the hardest A. The students answered the questions asked of them, and received as their grade the rating of the most difficult question or questions that they were able to answer. Very competent answering resulted in a plus being added to the letter grade, and imperfect answering resulted in a minus.

The examination types designated *a*, *b*, *c*, and *d* above tested especially a student's knowledge of isolated vocabulary and grammar items. The other types seemed preferable in that they simulated more closely the actual conditions of speech, and told the teacher something of a student's ability to initiate and to sustain conversation to its fullest limits. They tested more than the ability to comprehend. Examination-type *i* called for complete alertness on the part of the student, especially if quickness in response was being measured. Examination-type *l* bears further description, since it is the closest that the School came to objective testing of speech ability.

5. *The "ABCD exam"*

Examination-type 1 has come to be known as the "ABCD exam." As stated, a full description seems justified because it is the closest that the School came to devising an examination that tested proficiency in speech. The corps of examiners began by grading each question in terms of its difficulty. The easiest to answer were marked D, the next harder were marked C, etc. The students usually were given two or more questions of each grade. Proper answering of a question marked D or of two questions marked D meant that a student had earned at least a D grade, and qualified him for an opportunity to answer C questions. His grade for the examination was that of the highest grade of question that he could answer satisfactorily. A "plus" was added if his answering was done in superior fashion, and a "minus" was added if his answering was done in an inferior way.

In the classroom all students answered D questions first. If anyone faltered, he was usually given a second D question. A second failure usually meant an E for the examination grade, but successful answering of one or more D questions meant that the student had earned at least a D grade. When all of the students had answered their D questions satisfactorily or unsatisfactorily, the teacher proceeded to the C questions, asking them of the students who had answered the D questions satisfactorily. If any student failed on two or three tries at a C question, his grade remained a D, but during the rest of the examination the teacher returned to him with D or C questions, so that he would not consider himself left out of the proceedings. For the same reason, those students who had failed on the D questions were given the opportunity of answering additional D questions.

The "ABCD exam" fails unless the questions are carefully evaluated. In the Army Japanese Language School, only those teachers who were known to be strict in their grading and able to maintain a fairly consistent scale of judgment were asked to administer the examination. Thus, the number of students in the sections being examined became larger and more time had to be taken. To illustrate the workings of an "ABCD exam" at the very beginning of a course, the examination given on June 2, 1944 to a group of students when they first arrived at the school may be described. In this examination two very elementary "E" questions were included, each student being asked his name and the name of an object in the room. The assumption was that students coming with any previous training in Japanese, even for a few days, would be able to answer these questions, since statements

of the type "I am John Smith," "This is a chair," and "That is a window" are just as simple in Japanese as in English, at least in the sense that they are among the first learned. If these questions could not be answered, it was assumed that the students should begin their course from scratch. The "D" questions were also of the form "What is this?" "What is that?" with the instructor pointing out various objects in the room. These objects might include an eraser, the blackboard, the electric light, a watch, a match, a magazine, a dictionary, coins, etc. If the identifications were correctly made in Japanese, then a follow-up question, asking for data concerning the uses of the object identified, was directed at the student. Thus, if the student knew how to say *eraser* in Japanese, he was asked, "What do you use it for?" If he knew the word for *electric light*, the next question was, "When do you turn it on?" Grammatically speaking, the answers now called for the use of certain verbs in the present tense forms. In the case of "C" questions, each student was asked for various simple data relating to his past experiences, of the type:

Where did you come from?
Where did you study Japanese?
Why did you study it?
Have you studied other foreign languages?
What do you like to do?
Why?
What do you want to become?
Why?

Ease in answering these questions would show that a student had gained elementary control of Japanese, and could understand and respond to simple questions. The "B" questions included the following:

Where is Japan?
Please tell us about Lincoln.
Please tell us about George Washington.
Please tell us about Franklin Roosevelt.
To get to Michigan from California, what places do you pass?
Explain some things concerning your home town.

The students were thus asked to describe the location of a geographical area, to give a description of a famous person, or

to relate the details of a trip. They were obliged to show that they knew the vocabulary and grammar necessary for the description in Japanese of facts of a simple nature. The "A" questions placed the instructor and student in a hypothetical situation, and the student was asked to question the instructor on various aspects of the situation. Thus the instructor said:

Last night the lady who roomed upstairs in my home was killed by someone. If you were a reporter, what questions would you ask me?

Or,

I am a student at the Navy Japanese Language School at Boulder. Ask me some questions about that school.

Or,

In a hotel in a certain town, the manager and a guest are talking. The guest wants to know various things concerning that town. If you were the guest, what would you ask?

The situations were such as to demand accurate understanding; otherwise, the questions asked by the student would not have been pertinent. The situations also were a measure of the student's intelligence; if the questions asked were neither many nor relevant, he showed that in Japanese at least his command of his faculties at any moment could not be completely trusted.

Easy and deft questioning, on the other hand, would convince the examiner that the student had gained considerable command of Japanese. The results were such that in one section the following grades were attained:

A	.....	1 student
B plus	.....	3 students
B	.....	7 students
C	.....	4 students
D	.....	4 students
D minus	.....	2 students
E plus	.....	1 student

By the end of any course, the questions of an "ABCD exam" became much more difficult. Thus, "D" questions might ask for simple definitions, simple enumerations, and statements giving elementary facts. The teacher might ask:

Where are the South Sea Islands?
What does an army doctor do?
Name some epidemic diseases.
What do you mean by a piercing wound?
What does the pilot of an airplane do?

"C" questions might call for statements giving rather obvious reasons for procedures, or statements giving the dates and places of various events, or statements describing simple actions:

Where did Wilson (a character in a dialogue read by the students) receive his basic training and for how long?
What did they do with empty ammunition cases in the last war?
Why don't you have very much training with live ammunition at an army training camp?
How does malaria spread?

"B" questions might call for statements giving comparisons, for statements giving enumerations of rather technical vocabulary, and for statements giving reasons:

What is the difference between training with live ammunition and with blank ammunition?
What are the most dangerous types of ammunition, that is, to the soldier who is being shot at?
How does it happen that a shell sometimes doesn't explode?

"A" questions might ask for statements giving reasons of a more or less elaborate nature or for statements describing relatively difficult procedures:

In what situations do you use camouflage netting?
What are the purposes of army training and are these purposes adequately accomplished in the American army?

How are supplies and ammunition sent to the fighting front?

What would you bomb if you commanded a B-29 group?
Why?

The "ABCD exam" might thus be made to fit the proficiency and previous training of the students; when given to the best students near the end of their training, the "D" questions might be omitted since the expectation would be that all of the students would answer them properly. It seemed advisable in all cases to ask follow-up questions, that is, to give questions in sequence, to test the thoroughness of any student's knowledge concerning any subject that had been opened up. If all of the students in any section taking an "ABCD exam" could be induced to make corrections on matters both of language and fact, and to add details, a sense of great alertness could be maintained and the grades adjusted in terms of each student's contributions.

6. Tests on the ability to speak.

The tests specified in section 4 involve an initial act of comprehension on the part of the students, since the examiner begins by stating a direction or question in Japanese. However, all of the examinations described in section 4, and especially those of types *e*, *f*, *g*, *h*, *i*, *j*, *k*, and *l*, give clear indications of a student's capacity to speak Japanese. If a direction is given in English, the student is even more on his own in doing whatever he is asked; he is now forced to use his Japanese productively, without the benefit of even one question in Japanese. In the Army Japanese Language School the following test-types were used to examine each student's ability to speak:

a. The student was asked to translate sentences from English to Japanese. The English was written or spoken, and graded, like the questions in an "ABCD exam," in terms of difficulty. Since English was used, conversations in Japanese were not carried on between teacher and student, but it was possible to discover a student's control of relatively difficult constructions by this method.

b. The student was asked to talk extemporaneously on one or more given topics that were based on his experience and knowledge. The topics were chosen by lot from prepared slips on which they were written out. Aside from a student's language competence, this test told the examiner something of his general intelligence; the student's manner of delivery told the examiner

the degree of his control over his ideas when speaking to a group.

c. The student was asked to make inquiries on a given situation, to see how much information he could discover. This is of the type of the "A" questions in the placement examination described in section 5.

In the foregoing tests the instructor made notes on any or all of the following elements of speech: pronunciation, word-order, word-selection, control of grammar forms, fluency, and content.

7. Tests for comprehension.

Tests to discover the degree of a student's comprehension were relatively simple to design. They consisted of the following types:

- a. The true-or-false examination.
- b. The multiple-choice examination.
- c. Asking a student to do whatever was asked or to act out a narrative.
- d. Asking a student to translate materials that were written either in romanization or in characters.

A judicious mixture of easy and more difficult statements and questions usually resulted in a rather accurate appraisal of a student's ability to understand Japanese.

8. Tests for pronunciation.

Two types of examinations for pronunciation were used:

- a. The reading of a passage, with the examiner making notes on such matters as

(1) The qualities given to the consonants and vowels, especially to the *r* which in Japanese is of the flapped variety.

(2) Length of sounds: watching to see if long consonants and vowels were made short or short ones long.

(3) Pitch accents on specific words.

(4) Intonation of phrases and sentences.

- b. Multiple-choice examination, administered orally or in writing, with the students marking the right answer from such pairs as *agette* and *agete*. This type of examination was also used to examine the student's control of particles, word-order, inflected forms, and word-selection. In giving pairs, care had to be exercised to see that only one answer in any pair was the right one, and that the wrong ones were sometimes used by some of the students and hence were not completely absurd.

9. *Tests on vocabulary and diction.*

a. The matching test: the student was given two sets of words, one in English, one in Japanese. The entries in English were numbered, the entries in Japanese had pairs of parentheses placed in front of them. The numbers belonging to the English words were placed in the parentheses that belonged to the appropriate Japanese words. This type of examination tested the range of a student's vocabulary.

b. The student was given a series of sentences in romanization or characters, with certain words left out. Sometimes the items asked for belonged to such categories as the particles, that is, to categories that perform grammatical functions in sentences.

c. The students were asked to give synonyms or antonyms.

d. The students were asked to make a choice from multiple possibilities. The English equivalent could be given, with two or more possible Japanese equivalents; or vice-versa. Or, the student was asked to give honorific, humble, abrupt, polite, or informal equivalents.

It was possible to use the above tests in ascertaining knowledge of specialized vocabulary, such as that for geography and the military.

10. *Tests on the knowledge of spoken grammar.*

The various tests for control of grammar items could be specialized to examine a student's use of particles, sense of word-order, knowledge of inflected forms, and control of grammatical terminology.

a. The student was asked for such inflectional forms as those of the verbs and adjectives, and for such uninflected forms as the particles and numeral auxiliaries (equivalent to "head" in "three head of cattle"), in spaces that were left open in sentences written either in romanization or in characters.

b. The student was asked to fill in several forms for such inflected categories as the verbs and adjectives, in paradigmatic charts or grills provided for the purpose.

c. The student was asked for the translation of underlined passages in English or Japanese sentences.

d. The student was asked to compose sentences using designated forms.

e. The student was asked to make the right choice between two or more possibilities indicated in writing, that is, to make

a choice between two or more particles, between two or more inflected forms, or between two sentences that contained the same words in different order.

f. The student was given a series of sentences containing forms that were underlined and followed by parenthesized grammar terms that described or did not describe the underlined items.

g. The student was asked to give polite, abrupt, honorific, humble or informal equivalents.

In general examinations on grammar tested also the student's control of vocabulary and meaning.

11. *Tests on the older literary forms found in the modern Japanese written language.*

In tests searching into the knowledge of the older literary forms (*bungo* forms) found surviving in the modern Japanese written language, the students were asked

a. To restate, using *bungo* forms, sentences containing spoken language forms.

b. To restate sentences, phrases, or words expressed in *bungo* in their spoken language equivalents. The phrases and words were given as parts of complete sentences, and underlined (if in romanization) or sidelined (if in characters).

c. To translate Japanese sentences containing *bungo* forms into English. Sometimes the forms were underlined (if in romanization) or sidelined (if in characters), and translated by themselves.

d. To translate English sentences into Japanese, using *bungo* forms in the translations.

e. To compose sentences, using the *bungo* forms.

12. *Tests on the reading materials.*

The students covered enormous amounts of reading material, both in romanization and in the characters in which Japanese is written. When these materials were regarded as the basis for speech, the same types of examination used in testing for proficiency in the spoken language were used. Thus

a. The instructors had the students compose sentences using specified vocabulary items that were found in the texts.

b. The instructors had the students change certain sentences found in the texts into others containing honorific and humble forms, informal forms, etc.

c. The instructors had the students answer questions based on the text.

d. The instructors had the students recall particular lessons learned during the preceding week, and give summaries, synopses, or paraphrases.

e. True-or-false tests were given on the contents of the lessons, with the statements given either orally or in romanization.

f. The instructors asked for translations into English of chosen passages in the text. If characters were used instead of romanization, the knowledge of these characters played a part in the students' ability to give acceptable translations. Translations into Japanese also afforded a check on the students' ability to construct acceptable Japanese sentences.

The foregoing procedures duplicated those used for the testing of spoken language proficiency. On the other hand, it was understood that especially in reading aloud it is the eyes that receive the first stimulus and the speech organs that make the final response; to achieve accurate, fluent, and well modulated reading, the characters on any page must be recognized at once and oralized as if the reader were talking in meaningful phrases. Hence, examinations that tested a student's reading ability had to be developed:

a. The instructors had the students read designated lines or pages. The grading took into account the accuracy, fluency, and pronunciation. The reading was followed by

(1) asking the students to paraphrase the passages that they had read, that is, to express them in simpler Japanese.

(2) asking the students questions on the passages read.

b. The instructors gave a true-or-false examination, in which the statements were written in characters, and squares provided above them in which to mark T or F.

13. Examinations on the kanji or Chinese characters used in writing Japanese.

These may be listed as follows:

a. Dictation of sentences covering the *kanji* learned or reviewed during the week. The students were asked to listen to three readings of the sentences, first for comprehension, secondly phrase by phrase for writing, and thirdly for checking. The sentences were written in *kanji* and *kana*, the latter being the syllabic characters used in writing Japanese and consisting of two types, the more angular *katakana* and the more cursive *hiragana*. Words borrowed from foreign languages were put in *katakana*, as is customary. The dictation type of examination

tested not only the students' knowledge of characters, but their ability to comprehend, their knowledge of vocabulary, and their knowledge of *kanazukai*, that is, of spellings in the syllabic characters. The characters that the students wrote were also sometimes graded as to neatness.

b. Romanized sentences were given, with rewritings into *kanji* and *kana* asked for.

c. Romanized phrases were given, with some of the words underlined; the underlined words were given by the students in characters, sometimes with meanings. Giving phrases instead of single words clarified the context in that the choice among homonyms became delimited.

d. (1) the *kanji* or compound of two or more *kanji* was given, the pronunciation and meaning asked for.

(2) The pronunciation was given, the *kanji* or compound and meaning asked for.

(3) The meaning was given, the *kanji* or compound and pronunciation asked for.

Sometimes two of the three *kanji* or compound, pronunciation, meaning) were given and the other asked for. *Katakana* writings for words borrowed from foreign languages were sometimes included.

e. (1) Sentences were given in characters with some of the words expressed in *kana* or romanization; *kanji* were asked for the words in *kana* or romanization.

(2) Sentences were given in *kana* (*katakana* or *hiragana*) with spaces or squares left underneath certain words for inserting *kanji*.

f. Inflected words made up of a stem and endings were given in romanization; *kanji* and *okurigana*, the latter used to express the endings, were asked for. Since the *okurigana* sometimes had historical, non-phonetic spellings, this examination served partly as a test of the students' knowledge of such spellings.

g. English sentences were given, with the students asked to write their translation into Japanese in characters, using *kanji* and *katakana* or *kanji* and *hiragana*, as designated.

14. *Tests on the students' knowledge of historical kanazukai (spellings in kana).*

Some of the examinations listed in the foregoing section helped to test the students' knowledge of historical and non-phonetic spellings in *kana*. Examinations of the type a, b, f, and g fall into this category. Other tests of a student's knowledge of historical spellings in *kana* included:

- a. The historical *kana* spellings were given, and proper romanizations asked for.
- b. Romanized sentences were given, with certain portions underlined; these underlined passages were given by the students in historical *kana* spellings.

15. *Compositions and translations as tests.*

From time to time, especially when placement, comprehensive, and spot examinations were given, the students were asked to write compositions. If the writers came without special preparation, and if dictionaries and grammars were not used, the compositions reflected

- a. Control of vocabulary.
- b. Control of grammar forms.
- c. Knowledge of characters and of spellings in *kana* if written in characters.
- d. General ability to express oneself, especially if written as the students spoke, without attempting to be over-literary.
- e. General intelligence, originality and ingenuity, sense of unity, coherence.

In asking students to write compositions, the choice of topics was all-important if all of the students of any class were to be tested together. The subjects chosen had to be broad enough to fall within the experience of each student. Typical subjects were the following:

- a. The University of Michigan.
- b. Japanese movies.
- c. The study of the Japanese language.

If any class or group of students were composed of beginners or near-beginners, the compositions could be written in romanization; in the case of advanced students, the compositions were usually written in *kanji* and *kana*.

Translations, especially translations from English into Japanese, were like the compositions in what they tested. The originals, however, were fixed, and in translation there was no great play of a student's general intelligence, of his originality and ingenuity, or of his sense of unity and coherence.

16. *Tests on knowledge of factual data.*

As the students progressed in their work and gained proficiency both in the spoken and written languages, they were able to take up materials that possessed greater and greater content

value. Among these materials were a geography text, a set of military dialogues and a *Heigo* or military reader, the topographical sheets prepared by the Japanese Land Survey Department, and dialogues that had to do with military government. The tests taken on these materials showed the degree of control possessed by the students over technical terms, such as those relating to geography, the military, communications, surveying, and civil administration. Moreover, when the students were asked to write short essays covering these subjects, a great deal was learned of their general intelligence. When the various materials named were regarded as the basis for conversation, the testing procedures were the same as those employed for the spoken language. Thus,

a. Questions pertaining to the texts used during any week were asked. If the materials were military, the students could be asked

- (1) what the ranks of the Japanese army were,
- (2) why the topography of China is suited to guerilla warfare,
- (3) what the nature of the fighting on Palau was.

Or, if the topographical sheets were being covered, the instructor could ask questions pertaining to the scales used in the sheets, the surveyor, the dates of publication, and the publisher. On any sheet the students could be asked to give explanations concerning

- (1) the location, number, and types of barracks, schools, government offices, and factories,
- (2) the geographical and man-made features that surrounded a given point,
- (3) the highways, railroads, etc. that traversed a particular area,
- (4) what was to be seen on both sides of a road,
- (5) what was grown in the neighboring fields.

b. The students were asked to explain various vocabulary items.

c. The students were asked to give short talks on various topics.

The *Heigo* or military reader and part of the geographical materials were written in characters. Here the students could be given the same types of examination as for the other reading materials:

- a. They were asked to read specified passages, and were graded on the basis of accuracy and fluency.

b. They were asked to fill in incomplete statements based on the texts.

c. They took true-or-false tests on the materials covered, appropriately marking statements that were written in *kanji* and *kana*.

d. They were asked to write short essays on questions that were written in characters.

The *Heigo* or military reader, when used, was made the source of the characters which the students had to learn for the dictation hours. Here again

a. Sentences were dictated.

b. *Kanji* were given, and pronunciations and meanings asked for.

c. Meanings were given, and pronunciations and characters asked for.

The various materials here considered afforded an opportunity for special testing devices. In testing for knowledge of geographical data

a. The examiner issued

(1) a map with letters and numbers on it, designating various features,

(2) a separate sheet containing romanized place-names.

The students were asked to give on the second sheet, next to the place-names, the appropriate letters and numbers shown on the map.

b. The examiner issued

(1) a map with letters and numbers on it, designating various features,

(2) a separate sheet giving the letters and numbers again.

The students were asked to give on the second sheet, in romanization or characters, the names for the features that corresponded with the letters and numbers.

c. Making use of a wall-map, the students were asked to point out place-names.

The topographical sheets were like the maps. They were, however, peculiar in that special symbols designating such features as temples, shrines, schools, government offices, barracks, naval yards, etc. were liberally shown on them. To make sure that the students knew completely the significance of these symbols

a. the symbols were drawn on the blackboard or shown on flash-cards, and the students asked to identify the symbols seen. In identifying any symbol, the Japanese name for the thing symbolized was given orally, or the characters for that name were written down on paper.

b. the examiners provided

(1) a map containing the symbols, with the symbols variously numbered,

(2) a sheet giving in *kanji* the names of the objects which the symbols designated, and the students were asked to give on the second sheet, next to the appropriate *kanji*, the same numbers as those given to the symbols on the map.

17. The combining of test-types in various examinations.

The foregoing test-types were combined in various ways in the weekly, placement, comprehensive, and spot examinations. A typical *weekly examination* given on Saturday, September 8, 1945, consisted of the following test-types:

a. On the reading materials for the preceding week:

(1) Reading with accuracy, fluency, and proper pronunciation
(2) Explaining in Japanese the meaning of important words and phrases in the passages read
(3) Translating English sentences into Japanese orally
(4) Composing sentences, using specific Japanese words and phrases

b. On the characters:

Dictation of 39 sentences covering the *kanji* and grammar forms learned during the week.

On the following Saturday, September 15, 1945, the examination on the reading was replaced by one on the oral work. Here the students were asked

(1) To answer questions on the materials covered during the week

(2) To compose sentences using specific vocabulary items

(3) To converse, two at a time, on a specified topic.

The *placement examinations* given to an incoming class in late May and early June, 1945, consisted of the following tests:

a. In the spoken language:

(1) 50 true-or-false statements; - to test the incoming students' ability to comprehend oral statements.

(2) Given 400 Japanese words, to give the right English words out of several choices; - to test range of vocabulary.

(3) Given 100 Japanese words or phrases underlined in complete romanized sentences, to give translations for the words and phrases; - to test range of vocabulary and grammar.

(4) Given 100 English words or phrases underlined in complete sentences, to give translations for the words and phrases; - to test range of vocabulary and grammar.

(5) ABCD questions as described in section 5 above; - to test comprehension, pronunciation, fluency, ability to sustain a conversation, general intelligence as revealed by thoughtfulness in the answering.

b. For the written language:

(1) The writing of a composition; - to test the ability to express oneself in writing; this also tested range and precision in use of vocabulary and of grammar items and general intelligence as shown by the sense of unity and coherence developed in the compositions.

(2) Test on knowledge of *kanji*:

(a) 150 *kanji* given; pronunciations in romanization and meanings in English called for.

(b) 150 pronunciations given; *kanji* and meanings asked for.

(c) 150 English words given; *kanji* and romanized pronunciations asked for.

Comprehensive examinations usually covered two successive days. The one given to an advanced group of students in July 1945 consisted of the following tests:

a. On the spoken language work:

(1) Questions in sequence.

(2) Given a map with place-names numbered and lettered on it, to give on a second sheet the place-names designated by the numbers and letters; - 33 entries in all.

(3) Given 21 incomplete geographical statements, to fill in various entries.

(4) A matching test, in which 30 Japanese words were matched against 35 English words. The numbers given to the English words were given by the students to the appropriate Japanese words.

(5) A multiple-choice test, with 20 Japanese words given, each with three possible meanings. The right meanings were underlined by the students.

b. On the reading materials:

(1) Translation into English of 15 Japanese sentences taken from the texts studied in the immediately preceding month.

- (2) Translation into Japanese of 15 English sentences.
- (3) Reading of specified passages, with grading based on pronunciation and fluency.
- (4) True-or-false statements, written in characters, appropriately marked.
- c. On the written language:
 - (1) Dictation of 30 sentences.
 - (2) Given 50 *kanji* and compounds, to give pronunciations and meanings.
 - (3) Given 50 pronunciations, to give *kanji* and meanings.
 - (4) Given 50 English words, to give *kanji* and pronunciations.
- (5) A composition, "On the study of the Japanese language."

Finally, a *spot examination* given on July 27, 1945 to all of the students in the School was made up of the following:

- a. Translation of designated passages in the reading materials. The same passages were given to all of the students, regardless of standing in sections or groups, in order to arrive at a comparison of proficiencies.
- b. The writing of a composition on Japanese movies.

18. *Grading.*

In so large a school as the Army Japanese Language School, it was extremely difficult to keep the grading of the students uniform. This was especially true in the grading of spoken language proficiency. Some teachers were by nature strict, and adhered to the definitions of the grades A, B, C, D, and E given in section 1 above. On the other hand, at least one instructor was known to score students on the basis of 100 and to give a whole section of average students grades alternating between 98 and 100. When the grading was especially crucial, as in the case of the comprehensive examinations, the students were promoted or demoted from section to section or even from group to group on the basis of their scores. In these examinations, only a small number of instructors could be asked to administer the tests. Those tests, usually of the ABCD variety described in section 5 above, were the closest that the School came to devising an objective spoken language examination. It was also found useful to give to each group of instructors a scale of expectations which would tell at any given time in a course, for any group of students, approximately how many A's, B's, C's, etc. there should be. This scale of expectations was based primarily

on close examination of the students' proficiency and progress and on prior experience gained in the teaching program. The combination of strict instructors, definition of grades, tests thought to be the most objective possible, and a scale of expected grades gave some assurance of objective grading. On the other hand, a subjective element undoubtedly crept in, and a final comparison of grades given by the various instructors who administered the tests led sometimes to a raising or lowering, by a plus or minus, of the grades given by any particular instructor. In the case of the reading materials, that is, of materials written in *kanji* and *kana*, the point of view, as expressed before, was that they were just as much a basis for spoken language drill as the materials written in romanization. The reading test, in which the students reacted orally to characters printed on a page, introduced a somewhat new element. Accuracy in reading the characters was probably more difficult to achieve than accuracy in reading romanization. The degree of accuracy was, of course, a factor in the grade given to work in the reading materials. On the other hand, the tests given on the reading materials were often of the same sort as those given for the spoken language materials, and the same scale of grading applied to the latter was equally applicable to the former. The correlation shown in the weekly grades was very close.

The procedures followed in giving dictation has already been described. Briefly stated, three readings were given, once for comprehension, once phrase by phrase for writing, and once again completely for checking. The speed was controlled by the instructor who watched the progress made by the majority of the students as he dictated. No questioning was allowed. The papers, turned in at the end of the dictation period, were corrected on that day, and corrected meticulously, with the instructors initialing the papers that they had corrected. In the case of the comprehensive examinations, the sentences written by the students were divided among several instructors, one instructor correcting the first five sentences, a second instructor correcting the next five sentences, etc. If the instructors differed in meticulousness of grading, any deviation from strict correcting was thus confined to a few sentences and spread evenly among the students who were being tested. The rules governing the counting of errors were rigidly stated. The errors made from day to day were recorded in registers and at the end of the week compared against the following scale:

Errors per day	Grade
0 - 0.4	A plus
0.5 - 1.4	A
1.5 - 3.4	A minus
3.5 - 5.4	B plus
5.5 - 7.4	B
7.5 - 9.4	B minus
9.5 - 11.4	C plus
11.5 - 15.4	C
15.5 - 20.4	C minus
20.5 - 23.4	D plus
23.5 - 26.4	D
26.5 - 28.4	D minus
28.5 - above	E

In giving the final grades for any week, the daily average score was weighted at 50% and the examination score at 50%. The grading depended partly on the difficulty of the tests. Here again a scale was provided. Thus for certain groups of students who had already received 30 weeks of training, the following suggestions were made concerning the number of characters to be used in any single dictation period.

Section numbers	Number of Characters in One Dictation Hour	Number of Kanji	Number of Kana
401-407	450	200	250
408-413	525	225	300
414-421	550	250	300
901-906	425	175	250
907-913	450	200	250
914-921	475	225	250

Certain adjustments were sometimes made. Thus, in any group, the lower sections were not always able to take dictation as fast as the upper sections. Any penalties against the lower sections

were decided by the instructors in the group. Adjustments were also made in grading if a week's dictation sentences were adjudged to be exceptionally difficult or easy.

In the case of the placement and comprehensive examinations, a grading system had to be established for each of the several types of test, and the relative weight given to each test had to be carefully determined in arriving at a point total. The point scores were then translated into the grades of A, B, C, D, and E. Before the students were promoted or demoted as a result of the comprehensive examinations, the scores were compared against an up-and-down rating of the students prepared *before* the examinations were taken. This meant that the instructors' opinions were taken into account when the students were promoted or demoted; promotion or demotion did not depend solely on the scores made in examinations.

In certain cases the only possible basis for grading was the "bell curve" of scores made by all of the students. This was true in the case of true-or-false tests, multiple-choice tests, and the tests given on historical spellings in *kana*.

19. *Special cautions in preparing and correcting examinations.*

In preparing and conducting examinations, various cautions were followed:

- a. The tests had of course to bear a definite relation to the materials that the students had covered; in taking the tests, the students recalled particular data in the materials or applied whatever they had learned.
- b. The tests had to be varied enough, so that, if possible, more than one test-type was used in order to test each of the various types of competence.
- c. The teachers giving the tests had to be carefully briefed, so that no inequities would arise out of the manner of conducting examinations.
- d. To make the grading uniform and efficient, answer sheets and "overlays" for fill-in, multiple-choice, and true-or-false statements had to be prepared.
- e. The questions had to be stated clearly, so that no misinterpretations of meanings would arise. Complaints invariably arose if several answers "would do."
- f. Special cautions, as on the proper marking of long vowels in romanized words, had to be given as necessary.
- g. In correcting papers and in evaluating answers, the teachers had to suppress the influence of any subjective element that was due to contact with the students either in or outside the classroom.

h. The spacing of such examinations as the comprehensives had to be very judicious.

The testing and grading of language competences is thus seen to be an extremely complicated affair. But in the course of a year it was possible to arrive at a rather accurate appraisal of each student's proficiency. The tests helped in arriving at these appraisals.

THE EXPRESSION OF THE FUTURE*

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The concept of *time* in relation to action finds expression in the verbal forms of a great many, although not all, languages. 'In English we have made up our minds that all action must be conceived of in reference to three standard times'¹—the present, the past, and the future. Of these three, the devices for the expression of the future—their origin, development, and present use—receive from our grammarians the least satisfactory treatment.

The common school grammars of modern English usually give as the one means of indicating future time the combination of *shall* and *will* with the infinitive form of the verb and name it the *future tense*.² Some give two forms of the future tense: one for *simple futurity* and another for *determination*.³ As a matter of fact, however, the use of the auxiliaries *shall* and *will* with the infinitive is but one of several important methods of expressing the future and certainly does not deserve the title 'the future tense'. Some other combinations having a claim to be included in an English future tense are:

(a) the verb *to be* + prepositional infinitive. (He *is to go* with the committee.)

(b) the verb *to be-about* + prepositional infinitive. (The man *is about to dive* from the bridge.)

(c) the verb *to be* + *going* + prepositional infinitive. (They *are going to go* by automobile.)

Then too, the *present form* of the verb frequently refers to future time both in subordinate clauses and in independent sentences when some other word than the verb, or the context in general, indicates the time idea. (If it *rains*, I cannot go.) (He *returns* from his trip tomorrow.)

On the other hand, the use of *shall* and *will* to express determination (sometimes called 'the emphatic future', or 'the colored future', or 'the

¹ E. Sapir, *Language* 104.

² See, for example, Kittredge and Arnold, *The Mother Tongue* (1901), 2. 240.

³ See, for example, Scott and Buck, *A Brief English Grammar*, 125 (1907).

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modal future') is no more entitled to be included in the name 'future tense' than many other combinations of verbs which, because of their meaning, look to the future for fulfillment:

I desire to go.	I mean to go.
I want to go.	I have to go.
I need to go.	I may go.
I intend to go.	I can go.
I expect to go.	I must go.
I ought to go.	I might go.
I've got to go.	I should go.

In English, then, we have a variety of devices that express actions conceived of in future time. Most of them, like *desire*, or *expect*, or *intend*, joined with the prepositional infinitive, carry full word meanings and refer to the future because of the nature of these meanings. Others, like *may*, or the stressed *shall*, with the simple infinitive, or *have* with the prepositional infinitive possess a clearly distinct modal force. A few of these expressions seem at times to register mere tense meanings.

The usual statements of the grammarians concerning the origin, development, and present use of the devices to express the future make the following three points:

(1) Those words or inflectional forms were used for the future tense devices which naturally looked to the future for fulfillment. (Words of volition, purpose, obligation, necessity, and the modal inflections carrying the idea of possibility, as for example the present subjunctive.)⁴

⁴ Fowler and Fowler, *The King's English* 134: 'But as commands and wishes are concerned mainly with the future, it was natural that a future tense auxiliary should be developed out of these two verbs.'

G. O. Curme, *Journal of Eng. and Gmc. Phil.* 13. 517: 'Originally *will* indicated a desire of the subject, while *shall* indicated that an act was due in accordance with the will of some other than the subject of the verb. The meaning of both of these verbs suggested their use to denote the idea of futurity.'

Maetzner, *An English Grammar* 2. 80: 'It is self-evident that *shall* and *will* may be referred to activities whose accomplishment belongs only to the future, and that both, by their nature, go essentially to a subject-matter which is not yet realized. The characteristic distinction of both consists in this, that *shall* points originally to the dependence or obligation imposed upon the subject by the determination of a foreign will, which may be taken as a command, as a moral obligation, or even as a physical necessity, whereas *will* denotes the subjective resolve and inclination of the agent.'

Brugmann, *Comparative Grammar of the Indo-Germanic Languages* 3. 460 and 450 (1895). [Since there is but little essential difference between the views expressed in this earlier edition and those in the 1916 edition I have not used the later work

because the statements made in the English version fitted my purpose better. The pertinent paragraphs of the 1916 edition are 2. 3. § 423.3; § 705.]

"The conjunctive has a simple future meaning in addition to that of wish (in which I include deliberative and dubitative). Often these forms drop their other meanings in the separate languages, and have that of Future only, or chiefly. Then they are called future in the grammars, as are for instance Lat. *erō*, *viderō*."

"In Germanic the Idg. *sio*-future was lost, nor did this branch as others did, use certain conjunctive forms with future meaning only (as Lat. *erō*). For future events were used either perfect Present forms . . . or the living conjunctive, i.e., the Idg. optative (as Got. *jah sijdina bo tva du leika samin* *kai iorrvat* *ol tho eis oðrökra miav*); or thirdly, periphrases with auxiliaries which naturally pointed to the future. But the use of these last with dependent infinitive (Got. *haban*, *duginnan*, *skulan*, OHG. *scolon*, *muogan*, *wellen*, *wollen*) did not lead to any fixed type in the old Germanic dialects, and each auxiliary bore its own proper meaning. Only phrases with *sollen* and *wollen* gained by degrees a simple future tense. Besides these periphrastic turns there was an idiom made up by *werden* (Got. *wairþan*, OHG *werdan*) with the present participle which is found a few times, in Gothic as *jūs saúrgandans wairþiþ*, *þueis λυπθίθεσθε*, *you shall be grieved*. This idiom in OHG little by little won its way till all others had disappeared, but in MHG. the participle was exchanged for the infinitive."

Otto Jespersen, *Philosophy of Grammar* 260, 261: 'It is easy to understand that expressions for times to come are less definite and less explicit in our languages than those for the past: we do not know so much about the future as about the past and are therefore obliged to talk about it in a more vague way. Many languages have no future tense proper or have even given up forms which they had once and replaced them by circuitous substitutes. I shall here give a survey of the principal ways in which languages have come to possess expressions for future time.'

(1) The present tense is used in a future sense. This is particularly easy when the sentence contains a precise indication of time in the form of a subjunct and when the distance in time from the present moment is not very great: The extent to which the present tense is thus used is different in different languages; the tendency is strongest with verbs denoting "go":

(2) Volition. Both E *will* and Dan. *vil* to a certain degree retain traces of the original meaning of real volition, and therefore E *will go* cannot be given as a pure "future tense", though it approaches that function, as seen especially when it is applied to natural phenomena as *it will certainly rain before night*. The future is expressed by volition also in Rumanian *voiu canta* "I will (shall) sing"; In Modern Greek the idea of volition seems to have been completely obliterated from the combinations with *tha*: *tha*, formerly *thena*, is derived from the third person *thelei* + *na* "that" from *hina* and has now become a pure temporal particle. (Note—In It. *sta per partire* "he is going to start" the notion of future seems to be due to *per* denoting an intention "in order to".)

(3) Thought, intention, ON *mun*. This cannot easily be kept apart from volition.

(4) Obligation. This is the original meaning of OE *sceal*, now *shall* and Dutch *zal*. The meaning of obligation also clung at first to the Romanic form *scribere-habeo* "I have to write", which has now become a pure future tense, Under this head we may also place E *is to* as in "he is to start tomorrow".

(2) The full word meanings of these words or the distinctly modal ideas of certain verb-forms gradually faded leaving the idea of future time alone to be registered.⁶

(3) With all the fading the primitive meanings have not entirely gone. In many cases they still 'glimmer through' coloring the ideas denoted by the auxiliaries or the inflectional forms and thus cause the complex character of the suggestions or connotations conveyed in most expressions of the future.⁶

(5) Motion. Verbs meaning "go" and "come" are frequently used to indicate futurity, as in Fr. *je vais écrire*, used of the near future, E *I am going to write*. . . .

(6) Possibility. E *may* frequently denotes a somewhat vague futurity: *this may end in disaster*. Here we may mention those cases in which an original present subjunctive has become a future tense, as Lat. *scribam*.

(7) There are other ways in which expressions for futurity may develop The Gr. future in *-so* (*leipso*, etc.) is said to have been originally a desiderative. A notional imperative necessarily has relation to the future time.'

See also

Jacob Grimm, *Deutsche Grammatik* (neuer vermehrter Abdrück besorgt durch Gustav Roethe und Edward Schroeder) 4. 206-19.

⁶ I add but two examples to those given under the preceding note which touch this point also.

J. F. Royster and J. M. Steadman 'The "Going-To" Future', *The Manly Anniversary Studies in Language and Literature* 402. 'The track of the development of the *going-to* future seems easy to follow. It is reasonable to assume that it grew from the use of the progressive forms of *go* with the actual meaning of motion plus an infinitive of purpose or determination. The idea of actual motion to carry out the purpose weakened, and the combination came more and more to express merely purpose, intent, or determination. From a notional word, *go* falls into the state of an "empty" word.'

John Earle, *The Philology of the English Tongue*,⁴ Chapter V, §236. 'The word *shall* offers a good example of the movement from presentiveness to symbolism. When it flourished as a presentive word, it signified *to owe*. . . . From this state it passed by slow and unperceived movements to that sense which is now most familiar to us, in which it is a verbal auxiliary, charging the verb with a sense fluctuating between the future tense and the imperative mood. There are intermediate uses of *shall* which belong neither to the presentive state when it signified "owe", nor to the symbolic state in which it is a mere imponderable auxiliary.' §238. 'We see in the word *will* the graduated movement from the presentive to the symbolic state well displayed.'

⁴ Maetzner, *An English Grammar*, 2. 82, 83, 81: 'The notion *shall* pervades, even in the modern tongue, a series of gradations, which are weakened down from the expression of a compulsion, subjectively or objectively determined, to the idea of expectation and of imminence.'

Of these three statements the first can be accepted with but a brief comment. The evidence seems satisfactory that the devices for the expression of the future originated in those words and forms with meanings naturally looking to the future for fulfillment. One should, in passing, however, call attention to the fact that a considerable number of diverse languages have tried out the same set of devices for the future, although with differing results. The Germanic languages thus used *haban*, *munan*, *skulan*, *wiljan*, *wairban*.^{7a} Late Latin and the Romance languages tried out *velle*, *posse*, *debere*, *vadere*, *ire*, *venire*, as well as *habeo*.^{7b} Late Greek used not only the subjunctives but also *ἐχω* and *θέλω*.^{7c} Coptic used NA the primitive word meaning *to go* and also the preposition E meaning *toward* as devices for the future.^{7d}

'Will, appearing in the periphrastic future, appears no less in a manifold gradation of meanings, which gradually sink from the more decided expression of the will into weaker shades of the notion.'

'With the weakening of both the primitive meaning has not perished. The glimmering through of the latter gives to the modern tongue, on the one hand, occasion to avoid ambiguity, on the other, to express more delicate shades of thought, apart from the conventional distribution of the auxiliary verbs among the several persons.'

C. B. Bradley, 'Shall and Will, An Historical Study', *Trans. of Am. Phil. Ass.* 42, 15, 16, 17 (1911): 'Shall started in English with (1) the idea of pecuniary obligation or indebtedness I owe From this narrow beginning its scope was gradually extended to cover the field (2) of moral obligation in its specific sense of duty and propriety From this use *shall* ranges upward through (3) the *shall* of superior authority in commands and laws to (4) the compulsion of force or of fate. Its meaning ranges also downward to (5) the *shall* which indicates merely that the action is determined upon, or scheduled to come off and forward (6) to that which is considered to be inevitable or certain, and so is vouched for by the speaker. At this stage it is clear that attention and interest are already shifted from the idea of circumstances which are now conditioning action, to the idea of the future event.'

'In polar antithesis to *shall*, *will* started with impulse from within, and meant (1) to desire, to wish, But desire may be heightened till it becomes resolve and *will* then means (2) to purpose, to intend, or it may be lowered to (3) to be willing, to consent to The connotation here, it will be noted, is negative rather than positive. The proposed action encounters no opposition from the person named as agent, and so is in a fair way to take place. Exactly as we found in the case of *shall* when motive and circumstance sink in importance, interest and attention shift to the event.'

^{7a} See Grimm, *Deutsche Grammatik*, 4. 206-19.

^{7b} See Grandgent, *An Introduction to Vulgar Latin*, 56-8.

^{7c} See Jannaris, *Historical Greek Grammar* 552-9 (Appendix IV, *The Future Indicative Since Attic Times*).

^{7d} See Steindorff, *Koptische Grammatik*, §§ 273, 278, 279, 289, 290; and Stern, *Koptische Grammatik* 219-23.

The process indicated in the second statement can also be accepted. These original meanings gradually fade and the words tend to become merely form or function words—auxiliaries of a future tense. The assumption, however, that this loss of full word meaning is the end of the process seems an invalid one and the statement that whatever connotations these expressions may still carry are 'glimmerings through' of previous meanings is plainly inadequate, for the three following reasons:⁸

(1) Although such an explanation would account for the meanings of *desire* or *wish* which might be suggested in a future phrase with *will* it does not account for the cases in which *will* with the second or third persons implies a compulsion to be brought upon the subject.⁹

(2) Although the explanation would account for any suggestions of compulsion which may attach to a future phrase with *shall* it does not account for the many cases in which the meanings of resolve or determination on the part of the subject attach to the future expression with *shall*.¹⁰

⁸ I am repeating here two sentences, and in the footnotes several examples from my article, 'The Periphrastic Future with Shall and Will in Modern English', *Pub. of Mdn. Lang. Ass.* 40. 963-1024.

⁹ Some examples of this use are the following:

'You will go to your room and stay there!' (The speaker's command.)

'A. He says that he has decided not to go to the court.

B. Well, he *will* go to the court even if we have to carry him.' (The subject is threatened with such pressure as will force him to act in direct opposition to his wish or resolve.)

In the following from Masefield's *The Faithful*, 1. 2. 51, the 'you will' expresses the speaker's not the subject's promise and determination.

'Kurano—Kira taught you the wrong ritual?

Asano—Yes.

Kurano—*You will not go unavenged.*'

The 'you'll', etc., in the following from *Jane Shore*, V., p. 208, line, 393, implies a threat of the speaker against the subject.

'Shore—Infamy on thy head!

Catesby—*You'll answer this at full.—Away with 'em.*'

¹⁰ Some examples of this use are the following:

Masefield, *The Faithful*, I, 11, 11

'Lord Asano—This alters everything, I *shall go at once* to the Envoy's court and appeal against Kira.'

Cibber, *Love's Last Shift*, IV, 66

' Damme! Sir, have a care! Don't give me the Lye, *I shan't take it*, Sir.'

(3) Even if one insists that the 'glimmering through' of the purpose-expressing infinitive with *going* and *about* sufficiently accounts for the ideas of intention and determination which attach to the expression of the future in the following examples:

Pinero, *The Second Mrs. Tanqueray*, III, 62

'Paula—. . . . My tongue runs away with me, *I'm going to alter*, I swear I am.'

Masefield, *The Faithful*, II, 1, 62

'Kurano—*Are they going to kill me?*

4th Ronin—They said *they were going to make sure of you.*'

'He has bought up two of our neighbors and *is about to buy us up too.*'

yet such an explanation could hardly account for the suggestion of compulsion or necessity in the following example with the strongly stressed verb *to be*.

'X—I don't intend to allow anyone to see the books.

Y—But you *are* going to let us see them for we have the judge's order.'

Nor could it account for the fact that quite frequently the present form of the verb conveys not only a future meaning but also the suggestions of intention, resolve, or determination.¹¹ Even in Old English we find such an example as the following:

Congreve, *The Way of the World*, V, 1, 65

'Sir Wilful—Therefore withdraw your instrument, sir, or by'r Lady, *I shall draw mine.*'

Taylor, *The Babes in the Wood*, III, 1, 69

'Beetle—There! but let this be a lesson to you, Arabella—the first time you forget it, *I shall not return to the Queen's Bench*, but *I shall certainly apply to Mr. Justice Cresswell.*'

¹¹ Some examples of this use are the following:

Crothers, *He and She*

'Keith—*Aren't you coming* in to see the workroom?'

Pinero, *The Second Mrs. Tanqueray*, I, 40

'Misquith—I *go up to Scotland* tomorrow, and there are some little matters. . . .'

Ibid. II, 52.

'Mrs. Cortelton—*We go to town* this afternoon at five o'clock and *sleep tonight* at Bayliss's.'

Ibid. II, 45.

'Aubrey—Well, she's going to town, Cayley says here, and his visit's at an end. *He's coming over this morning* to call on you. Shall we ask him to transfer himself to us?'

Alfred, *Orosius* EETS 1. 42. lines 6, 14, 17, 21

'Hwa is þat þe eall da yfel þe hi donde wæron asegean mæ ge odde areccan?
 Eac ic wille geswigian Tontolis & Philopes þara scondlicestena spella; hu
 manega bismerlica gewin Tontolus gefremede syddan he cyning wæs;'
 'Ic sceall eac forlætan þa þe of Perseo & of Cathma gesæde syndon,'
 'Eac ic wille geswigian þara mandæda þara Lemniadum & Ponthionis þæs
 cyninges,'
 ' ic hit eall forlæte. Eac ic hit forlæte, Adipsus hu he ægþer ofsloh
 ge his agenne fæder,'

In this example it seems impossible to take these three expressions as conveying differing shades of meaning. They all three seem to me to suggest with the future *the purpose of the speaker*—an idea which is in no way related to the primitive meanings of two of the three expressions used.

The suggestion, then, which I should offer as the means of accounting for the facts which we find concerning the expression of the future is this. The grounds upon which the future is usually predicted are desire, hope, intention, resolve, determination, compulsion, necessity, or possibility. Any locutions which express any of these ideas related to the future may be taken up and developed as future tense signs. The course of development is in the direction of their losing their full word meanings and thus also losing their limitation to the particular meanings suggested by their origin. They tend to become future tense signs but with colorings which range from an almost pure future sense to distinctly modal ideas. These colorings are not the glimmerings through of original meanings but may be any one of the grounds upon which the future is predicted, depending upon the context. These colorings are thus the inevitable connotations of the *future idea*. As such they will attach themselves to any locution developed as a device to express the future so that such a locution may suggest any of the ideas related to the future even if these ideas are wholly unrelated to or opposed to its original full word meaning. This process would thus tend to thwart the developing of any phrase or form into a mere sign of the simple future tense.

Of course in a rapid impression with an entirely unemphasized phrase the general future prediction may be all that registers, yet with more attention put upon the statement, directed by greater emphasis on some part of the word group or by the reader's attempted analysis, there often stand out more prominently some of the connotations of the grounds upon which the future is predicted.

In a very brief statement the process could be summarized as follows: A certain limited range of ideas furnish the grounds upon which the future is predicted. Any word or form with meanings within this range of ideas may be taken up and used as a device for the expression of future time. As it becomes such a device the emphasis gradually shifts from the full word meaning to the future idea. But now as a device for the expression of the future it may suggest (depending on the circumstances and without limitation of its original meanings) any of that range of ideas which are the bases of future predictions.

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REVIEWS

LADO, ROBERT. *Linguistics Across Cultures*, University of Michigan Press, Ann Arbor, Michigan, 1957, pp. 141. \$2.75.

Five of the six chapters in Professor Lado's *Linguistics Across Cultures* begin with the phrase, "How to Compare," and this very neatly describes the theme of his book. Building upon the assumption that the problems of learning a second language are predictable in terms of the contrasts and similarities of the target language and the native language of the learner, and that such comparisons constitute a necessary preliminary to the preparation of teaching materials and tests, he proposes to indicate ways in which they may be made. He has included within his domain cultural as well as linguistic comparison.

The organization is conventional, proceeding from the sound system to the inflections and syntax, then going to the lexicon and concluding with the comparison of cultures. One element which might have been considered does not appear, namely the vocal qualifiers. It would be worthwhile noting, I should think, whether the impact of such qualities as drawl, clipping, rasp, nasality (to mention only a few), is the same on both the native and target languages, or if not, to state the difference. Belonging definitely in the realm of metalinguistics, this might well have bridged the gap between the consideration of linguistic and cultural matters.

Professor Lado has succeeded admirably in writing of technical linguistic matters in a style which is not above the heads of his intended public, namely trained teachers of foreign languages. It should serve them well as a statement of the overall strategy of the language-teaching process, and were it to fulfill the hopes of the author, it would stimulate them to make the kind of linguistic and cultural comparisons which he suggests. There is a reasonably good chance that the book will have this effect upon many teachers of English as a second language. It is difficult to entertain the same certainty about the teachers of foreign languages to native speakers of English. For them, is this not merely the first of a whole series of books which will have to be written, comparing the structure of English with that of French, of Spanish, and of German? I am not suggesting that this is Professor Lado's responsibility, but I do maintain

that the responsibility of the profession is not fulfilled merely with pointing out how these various comparisons may be made. In order to be of real help to someone who has never baked a cake before, we must do more than just to give him the recipe.

Perhaps one of the most heartening impressions to be gained from this book is that there are fewer diametrical differences in the practical applications of linguistics than in the theories which lie behind the analysis. Although Professor Lado writes the so-called English "long" vowels as unit phonemes, following Pike, what he has to say about the problem of differentiating paired vowels, as it confronts a native speaker of Spanish, could quite as easily have been said in terms of a Bloch-Trager-Smith system of nuclear phonemes. There are other evidences, notably in the treatment of stress and juncture, of a narrowing of the chasm between the various schools of linguistic analysis.

Some points in the book, of course, are matters upon which disagreement is possible. Irrespective of what the conventional presentation of German phonemic structure may be, the phonetic contrast between pairs like *bitte* and *biete*, *Mitte* and *Miete* is sufficiently similar in nature to English *bit* and *beat* that the absence of a perception problem here should not be too surprising. I find it difficult to believe that Professor Lado intended to equate the Midland dialect of American English with what used to be called General American, as he appears to do on p. 23. To do so is to confuse the concept that Kurath added with the one that he discarded, but this does not necessarily imply that they are identical.

Although some attention is given to supra-segmental features in the chapter devoted to grammatical structure, the reader of this book is not likely to put it down with a firm realization of their role in morphology and syntax and a conviction that a consideration of stress, pitch, and juncture must necessarily be a first step in a grammatical comparison. The procedures for such a comparison, as given on pp. 67-72, would, I believe, have been somewhat more effectively presented had they been put in topical or outline form.

The chapter on the comparison of writing systems is commendable for its clarity of treatment. I would question the inclusion of *ght* as an allograph of /t/ on the ground that such contrasts as *sigh:sight,nigh:night* assign it rather to the vowel nucleus.

The treatment of culture traits and the role they play in the learning of a language is welcome, particularly since the topic is seldom dealt with in this connection, but the chapter is re-

grettably brief. It would have been helpful to go into the matter of national stereotypes more fully; their involvement here is greater than one would gather from this book. What is most needed, perhaps, is a systematic but nontechnical scheme of classification of culture traits. Nevertheless this is a beginning, and if the hints given here are followed up, the profession should be able to look forward to a greater degree of cultural sophistication in teaching and testing materials in the future. Professor Lado should be given not only credit but praise for the pioneer efforts he has made in this direction.

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REVIEWS

MARIO PEI, *Language for Everybody: What It Is and How to Master It.* Pp. xii, 340. New York, The Devin-Adair Company, 1956. \$5.00.

Language for Everybody is the most recent of several books on language and languages which Mario Pei, Professor of Romance Philology at Columbia University, has addressed to the general public.¹ Its twofold purpose, to acquaint the reader having no previous linguistic knowledge with some fundamental facts and ideas concerning man's basic means of communication, and to give practical guidance to that reader in acquiring foreign languages and increasing his effectiveness in the use of his own, is wholly admirable. Unfortunately, *Language for Everybody* cannot be called successful in fulfilling that purpose.

The book is organized into six parts. Part I, "Language in Your Daily Life," is introductory. Part II, "Language in the Laboratory," contains the little that Pei says about linguistic structure. Part III, "History of Language," has more to do with the external history of languages than with internal structural change. Part IV, "Sociological Implications of Language," is concerned with such assorted topics as "the language community," "language minorities," and "what makes a language important?" Part V, "Languages in Comparison," touches on both comparative linguistics and linguistic typology. Part VI, "Some Practical Language Hints," purports to tell the reader how to identify languages he hears spoken or sees written, how to learn to speak a foreign language, how to learn to read a foreign language, and how to improve his use of his native language. Throughout the book, illustrative material, often lengthy lists of forms, words, or sentences, is set off from the main text by horizontal lines across the page. Examples, chosen at random, are "Permissible and Nonpermissible Groups of Consonants at Beginning and End of Words in Various Languages,"² a list of "The World's 106 Languages Having the Largest Speaking Populations,"³ "Samples of Constructed Languages for International Use,"⁴ and "Samples of Arabic Structure."⁵ All too often, this material is merely presented and

1. The best known of his other books are *The Story of Language* (1949) and *The Story of English* (1952).

2. pp. 112-14. 3. pp. 223-25. 4. pp. 242-43. 5. p. 282.

is not discussed in such a way as to make it meaningful for the reader.

It would be simple to fill several pages with statements from the book, both general and specific, which would strike the careful student of language as either misinformed, or badly reasoned, or both. For instance, Pei lists as two examples of "pure nationwide slang," a colorless, straightforward statement in non-Standard English, "I ain't got none," and a spelling representation of ordinary conversational pronunciation, "Jeet? No, joo?"⁶ The first example could be accounted for by Pei's own definition of slang as "a substandard form of speech that is generally intelligible to the entire population...whether they choose to use it or not,"⁷ but the second certainly could not. Even the best of books, of course, contain errors of fact and statements to which a critic may take exception; Pei's book, however, contains far too many statements to which linguistic scholars would take exception.

Merely cataloging such vulnerable statements, however, would never get to the real reasons why *Language for Everybody* is an unsatisfactory book, for these reasons are more general. The first of them is a failure to fully utilize the methods and results of the structural approach to language. Such basic structural concepts as the phoneme and the morpheme are scantily and imprecisely treated in Part II and are never referred to again. Pei defines the phoneme and illustrates the principle of complementary distribution; but he immediately proceeds to violate the principle by listing the vowel of "the" and the vowel of "but" as different phonemes.⁸ His entire treatment of English syllabics is inconsistent. Instead of either considering the syllabics of "beat" and "bait" as both being monophthongs, as Pike does, or as both being diphthongs, as Trager and Smith do, he considers "beat" as having a monophthong and "bait" as having a diphthong.⁹ When he comes to stress and intonation, he neglects the phonemic principle altogether. The best he can do with intonation is to represent it with musical notes on a staff and to say that "there are no precise rules governing it."¹⁰

The morpheme comes in for even more cursory treatment. It is defined, rather inaccurately, between parentheses--"...morphemes (independent units of form, like the -s of "birds," which convey significant accessory notions)..."¹¹--and then forgotten

6. p. 61.
10. p. 100

7. p. 59.
11. p. 93.

8. p. 82.

9. *Ibid.*

entirely. Referential meaning is resorted to in defining parts of speech: "Verbs are action words or indicate states..."¹² There is no systematic attempt to discuss syntax. All that Pei has to say about Modern English might just have well been written before the appearance of such books as Pike's *The Intonation of American English*,¹³ Fries' *The Structure of English*,¹⁴ and Trager and Smith's *An Outline of English Structure*.¹⁵

A second reason for the inadequacy of *Language for Everybody*, one perhaps even more basic than the ignoring of the structural approach, is the general attitude which underlies the book, and which permeates it throughout. The study of language is approached not primarily as a means to intellectual enrichment and satisfaction but as something which will pay off:

Ignorance of improper use of language can easily interfere with your success and advancement. It can take money out of your pocket.¹⁶

The person who speaks, easily and correctly, the standard speech of the broad language community to which he belongs will normally find himself better off all around. He will be able to express his ideas and personality and get what he wants. He will be able to make friends and influence people.¹⁷

Thus does Pei present language study as a sort of panacea. And a panacea, of course, must be easy. Perhaps a desire to make his subject matter easy is partly responsible for Pei's avoidance of the concepts of structural linguistics. Perhaps such a desire is also responsible for his failure to use standard phonetic or phonemic transcriptions any place in the book. Ironically enough, such avoidances make much that is in the volume more difficult. Without transcription, forms from foreign languages must be cited in conventional orthography, which is meaningless to a person who does not know the spelling system of the language involved, or in makeshift "phonetic spellings" which are as confusing as helpful. Structural concepts and terminology may be difficult for a learner at first, but in the long run they can make discussion of language clearer and

12. p. 93.

13. University of Michigan Press, 1945.

14. Harcourt, Brace and Company, 1952.

15. Norman Oklahoma: Battenburg Press, 1951.

16. p. 5., 17. p. 7.

simpler. The lack of such concepts vitiates the sections on language learning and makes them little more than casual conversation on the subject. The best method Pei offers for learning to speak a foreign language is for the learner to put himself in a "real-life" situation where the language is spoken and then to struggle with it. The best method he can offer for learning to read one is a slight polishing up of the traditional grammar-and-reading method. In short, he begins by eschewing the intellectual for the practical and, as a result, gets nowhere with the practical.

The continued popularity of books like *Language for Everybody* presents a challenge for the linguist and the language teacher. One of the responsibilities of the linguist is to write better books presenting his discipline to the layman. One of the responsibilities of language teachers, including those teaching English to native speakers, is to direct their students toward such sound books about language as already exist within lay comprehension. Robert Hall's *Leave Your Language Alone*¹⁸ is a popularization which is not afraid to use transcriptions or to give phonemes and morphemes more than a passing nod. Sapir's *Language*¹⁹ is rough going in spots, and is a little dated in its presentation of structure; but such chapters as the ones on "Language, Race, and Culture," and "Language and Literature" are not only sounder, but clearer, than much of Pei's writing on the peripheral aspects of language study. The serious college student who wishes to know the place of language studies in the total search for knowledge can profit from John Carroll's *The Study of Language*.²⁰ One of the best ways to learn what linguistic structure is like is to study the structure of a specific language; and Fries' *The Structure of English* should be within the grasp of the untrained reader, provided that reader is willing to read intensively and think hard. And once he begins to get a grasp of structure, he will find Fries, or any of the books mentioned here,²¹ easier than Pei; for all details will fit into place, and not remain isolated bits as they do in *Language for Everybody*.

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18. Ithaca: *Linguistica*, 1950.

19. Harcourt, Brace, 1921. The book has been made available in paperback form as a Harvest Book, as has a book of Sapir's essays, *Culture, Language, and Personality*, by the University of California Press.

20. Harvard University Press, 1953.

21. The titles mentioned above are not claimed to be an exclusive list, or even the best list, of reliable works on language available to the layman. They are merely some suggestions.

REVIEWS

PAUL ROBERTS, *Patterns of English*, Harcourt, Brace and Company, New York, 1956, Pp. v, 314. \$2.88. Teacher's Edition, with *Teacher's Guide* (pp. 39) \$3.25.

It is a tribute to the soundness and vitality of Professor Fries' analysis of English that within four short years no less than three textbooks have appeared which are, to a greater or lesser degree, derivative of *The Structure of English*. Of the three, Harold Whitehall's *Structural Essentials of English*, Donald Lloyd's and Harry Warfel's *American English In Its Cultural Setting*, and Paul Roberts' *Patterns of English*, Professor Roberts' book presents the most representative application of Fries' analysis to the teaching of English.

Roberts' book is intended as a high-school text whose purpose, according to the publisher's statement, is to teach students "to recognize the basic patterns, and to use them to communicate their ideas more clearly and effectively in oral and written expression." This suggests a review of 1) the analysis and 2) the pedagogical application.

I. The Analysis.

Roberts acknowledges his debt to *The Structure of English* --a debt which is heavy indeed--in a rather oblique manner. He feels that although *The Structure of English* is "off-trail so far as linguistic science is concerned...it is a brilliant display of English word classes and their arrangements in patterns."¹ The adjective is a little disturbing, because one wonders how Roberts can bring himself to use in his own book an analysis that he considers "off-trail." What he is referring to perhaps is the criticism by some--notably Professor James Sledd--² that Fries neglects "the signals" i. e., the phonological clues to syntactic structure. This criticism has, I think, been a little over-worked of late. Although it is true that some of Fries' ambiguities are paper ambiguities only, it is equally true that, at

1. *Teacher's Guide*, p. 37.

2. *Language*, XXXI, 1955, 339-341.

many points in the book, he does indicate the revelance of stress and intonation to structure. The interesting thing about *Patterns of English* is that Roberts himself does very little more with "the signals" than Fries, that, in fact, his confidence in the existence of correlations between juncture and punctuation marks is far less considered than Fries' cautious discussion in the last chapter of *The Structure of English*. Further, Roberts, so far as I can see, has introduced none of the new syntactic ideas that Professor Smith has worked out since the *Outline of English Structure* (for example, the fact that there may be no real distinction between adverbs and adjectives at the morphological level, that stress level--and apparently stress level alone--may distinguish word-classes, etc.). So it is really quite difficult to see why Roberts feels it necessary to be ungracious toward *The Structure of English*, particularly since his book owes so great a debt to it.

At the same time, it would be less than fair not to compliment Roberts on his mastery of Fries' methods and his ability to extend them. Roberts is a linguist of great ability who has offered two significant refinements of Fries' system and set the pattern for further development. I refer specifically to his more rigorous definition of Fries' Function Word Group D, which he calls *intensifiers*,³ and his valuable distinction between *conjunction* and *sentence-connector*.⁴ Intensifiers are words that pattern like "very." They occur with both adjectives and adverbs, but not nouns or verbs; thus they contrast on the one hand with adverbs, and on the other with determiners and auxiliaries. (Other members of the class are *rather*, *pretty*, *somewhat*, *awfully*, *really*. The importance of intensifiers is not limited to their difference from adverbs; once established, their presence serves as a valuable test environment to distinguish, for example, -ing adjectives from Class 2-ing words functioning as modifiers. This answers Sledd's criticism⁵ about Fries' assignment of *burning* to Class 2 even though it fits the position of *hot*. The answer is simply that *interesting* is an adjective because it can appear with *very*, while *burning* is a verb in modifical function because it cannot.

The sentence connector, *therefore*, is distinguished from the conjunction, *and*, by reason of its greater range of position. It can occur not only between the connected sentences

3. See *PE*, pp. 48-55, and *Language*, XXXI, 20-25.

4. *PE*, part VII.

5. *Lg.* XXXI, 342.

(*Charlie slept; therefore Eggstone grew impatient*), but also within or at the end of the second: *Charlie slept; Eggstone therefore grew impatient* or *Charlie slept; Eggstone grew impatient therefore*. A further distinction is that conjunctions can join more primitive structural units (e.g., words or phrases), whereas connectors cannot. Both conjunctions and sentence-connectors are distinguished from subordinators, in which class Roberts includes both relatives and subordinating conjunctions.⁶ In both instances, Roberts' demonstration is quite conclusive. The fact that these contributions appear in a high-school text does not diminish their importance as informative of English structure, and we look forward to more contributions of the same calibre from Roberts.

While this is not a review of *The Structure of English*, it is inevitably necessary to consider a few matters upon which Roberts seems to agree with Fries. I offer this discussion in all humility and with due respect to both Fries and Roberts. I do not know the answers, but I do feel that these are problems worth discussing.

The first is the problem of the sentence. Roberts echoes Fries' complaint that the sentence has never been adequately defined and asserts that sentence structure "must be studied if the student is to be taught to write 'sentences,'" (PE, TG, p. 3) that the student must develop "a feel for sentences." (PE, TG, p. 4). Sentences are considered in the text in several places: Part III "Sentence Patterns," Part V "How Sentences are Built," Part VI "Function Units in Sentence Patterns," and Part VII "Joining Sentence Patterns." Despite the extensiveness of this treatment, however, the reader remains somewhat in the dark about what a sentence is. In one place Roberts defines it phonologically: it is a unit marked off "by complicated adjustments in the pitch of the voice" (p. 57); shortly thereafter, it is defined componentially: "it consists of one of a number of word patterns" (p. 58); and on the following page, psychologically—or if that is an invidious word, behavioristically—"according to the

6. I do not quite see what is to be gained by lumping these two together under one name. As Roberts himself shows, relatives are usually noun-modifiers while subordinators are 'sentence-modifiers.' The fact that the class consists of two clearly differing lists of words which also function differently should be enough to establish their independent existence.

tendency they have to make people behave in certain ways." (p. 59) And as salt for his wounds, the student is told somewhat unfeelingly, "We need not define 'sentences' any further. If you do not already know what an English sentence is, you will when you have studied sentence patterns for a month or so." (p. 58) That is, presumably, you will learn what a sentence is by learning there are three *kinds* of sentences, and you must not assume anything *else* to be a sentence. (Thus a fourth, or "typological" definition.) Sentence patterns are of three kinds: 1) *Statements* "show a particular connection in form between two parts of the sentence... a word in one part of the sentence and a word in the other part. One of these words is always a verb or an auxiliary." (p. 61) *Questions* tend "to make the hearer say something in answer to the questions." They are made in "several ways" by... "changing the places of the subject and the verb" (p. 272), normal order "with double-bar juncture at the end..." (p. 276), and through the use of "question words" (Chapter 58). *Requests* tend "to make the hearer do something" and consist "basically of just the simple form of a verb, without any subject." (282) What do all these *kinds of sentences* add up to? I'm afraid something suspiciously like the old prescriptive notion that sentences only exist when they contain finite verbs. The reader may well wonder whether this implication may not involve Roberts in the very "compositional fallacy" (a sentence is to be defined in terms of its ingredients) which Fries is so anxious to expose in *The Structure of English*, pp. 14-15. What happens to a sentence like "Mine," as a response to the question "Whose book is this?" or to my sentence above that begins "I'm afraid..."? The dilemma, of course, is as much Fries' as it is Roberts'. The question is: What is the mechanism by which one goes from *utterance* (an act of behavior) to *sentence* (presumably a unit of linguistic form)? The more I read Fries, the less able I am to answer that question.⁷ The difficulty is even greater with Roberts because he apparently leaves "utterance" out of the discussion entirely.

I think we will get nowhere with teaching students how to write "sentences" until we frankly accept the fact that there are two definitions of a sentence, a linguistic and a rhetorical.⁸ The

7. See Sledd, p. 337.

8. Not counting the "psychological" sentence, for which the term "utterance" is most suitable--in other words, "utterance" is not a linguistic, but an extra-linguistic concept, since it involves the "practical connections" of language to non-linguistic behavior.

linguistic sentence is phonologically defined--it terminates in certain junctures and contains a certain pattern of stresses. The rhetorical sentence is simply a unit of literary taste, which needs a different kind of analysis. I see no need to assume that there is a necessary correlation between rhetorical and linguistic sentences, nor do I think that grammatical training will necessarily help the student to write rhetorically acceptable sentences, even though it will obviously teach him a great deal about his language that he ought to know.

I embark on a discussion of juncture and punctuation with some misgiving about my own ability to discern junctures in the Trager-Smith system, and it may well be that the deficiencies of my own ear will cause me to be unfair to Roberts. If this is so, I should like to apologize in advance; but I feel the matter is of sufficient theoretical importance to consider in detail. I agree wholeheartedly with Roberts' connection of punctuation and *syntactic* patterning (p. 260), and I think his discussion of these correlations is quite sound. But I do not believe that the following is a valid statement:

We saw that double cross juncture, a fall in pitch, is represented in writing by a period or a simicolon; double-bar juncture, a rise in pitch, is represented by a comma; single bar juncture, level pitch across a break in a sentence, is shown by no punctuation. (260-1)

Not only is this untrue in many American dialects, but if Roberts' advice is followed, the student will get into more trouble than he ever dreamed of. In my dialect, it is simply not true that double bar signals a comma; it usually corresponds to a period, in utterances like *I wouldn't do that if I were you* || or to a question mark in *Are you coming* ||. I consistently use double cross or single bar in a comma construction, always *Running into the house* # (or |) *Agnes told us the news* # and *We invited Al* # (or |) *who had a car* #, but never doublebar, as Roberts indicates (233). Similarly, I frequently use major marks of punctuation, like the semi-colon, where the juncture is no stronger than single bar (or even plus): *He's tough; watch out for him*, and so forth. There are other examples that seem to me equally to contradict Roberts' rules, but I won't belabor the point. I do not believe that there is any simple or useful connection between junctures and punctuation, and a good deal more convincing demonstration is forthcoming before I will be willing to accept statements like: "This connection between

punctuation and intonation is especially important, because it will serve you as a guide when nothing else will." I fear that a student who uses juncture as a last resort may find himself in deep trouble indeed. Here, too, it may be wise to remember that punctuation marks are basically rhetorical, not linguistic, and that the difference between linguistic and rhetorical systems may be so complex as to make any attempt at correlation more trouble than it is worth.⁹

Three final matters upon which Roberts and Fries agree require discussion and are best taken in order of their relative difficulty: 1) the roster of Group A words (determiners), 2) the sub-classes of Class 4, and 3) the analysis of immediate constituents.

1) The make-up of group A¹⁰ has always bothered me, and I hope to publish elsewhere a more detailed analysis. I want only to suggest here that mere substitution may not be enough for class-determination, that the fact that *all*, *both*, *more*, *most*, *few*, *much*, *many*, and the numerals can occur in place of *the* in some frames is not conclusive evidence that they belong to the word-class which *the* represents. The over-all patterning of mutual exclusions must be considered too: *all* and *both* can occur in the pre-determinant position (*all the men*), and *more*, *most*, *much*, *many*, and the numerals can occur in the post-determinant position--both of which are barred for other determiners. Similarly, each of the above can substitute for a noun (along with *each*, *this*, *that*, *etc.*), a function which *the* can never perform. Finally, *many*, *much*, and *few* can occur after *very* and so in another way are different from *the*. In view of these differences I think it would be well either to distinguish a separate class of function words or else to work out several distinct sub-classes of Group A. Roberts' answer to the problem is only partial: "You may wonder why we don't say that adjectives and determiners are the same thing... if we examine their over-all behavior, we find that *the* and *beautiful* are very different... we don't say 'cats are very the'." (PE, 32) Two comments are useful here: 1) this may be true of *the* but it won't work for *few*, which is also included in both Fries' and Roberts' lists: *Cats are very few around here* is perfectly possible. 2) It is the demarcation line between articles on the one hand and *pronouns* and *adverbs* on the other which is difficult to ascertain, not between articles and adjectives.

9. It is interesting to note that Whitehall in his *Structural Essentials*, although heavily indebted to Trager-Smith, makes no attempt to describe punctuation usage in terms of junctures.

10. See PE, 30-34.

tives; that is, some Group A words can act as substitutes, some are modifiable by *very*, etc. These facts must be considered in any accurate statement of the situation; and class A needs a rather thorough re-working if it is to be useful.¹¹

2) Fries recognizes three sub-classes of Class IV words in terms of relative position in the post-verbal frame: *The men went down rapidly often*. These sub-classes, according to Roberts, (p. 97) correspond to adverbs of place, manner and time. I frankly cannot see that this three-way distinction is borne out by the facts of distribution. First of all, a sentence with three post-verbal adverbs in a row is of very rare frequency in English, and where it does occur, the sequence does not seem necessarily fixed to *space-manner-time*. Some native speakers with whom I have discussed this matter think that *manner-space-time* is equally possible, along with a few (although not all) other permutations. Roberts himself may be admitting as much when he writes "To be sure, this isn't the only possibility. The order of adverbs is really rather flexible..." (98) Indeed; and one wonders whether the post-verbal frame is not too unsettled to be very useful. I do not believe with Roberts that an utterance like the following may *never* occur: *He went away later quickly*. In fact, this seems not at all less cumbersome to me than *He went away quickly later* (in the sense that both are very artificial and reasonably unlikely to occur).

On the basis of a rather cursory analysis, I have come to the conclusion that we can profitably distinguish only two sub-classes of class 4 words on the basis of distribution: a sub-class which can appear both pre-verbally and post-verbally (a), and a sub-class which can appear only post-verbally (b). Therefore, we distinguish:

(a)	(b)
<i>They often went there</i>	
<i>She angrily ran away</i>	
<i>He then played thus</i>	

It is obvious that semantic criteria are not attributable to these sub-class distinctions, since one manner adverb, "*thus*", is a sub-class (b) type, while another, *angrily*, is sub-class (a). My major point is that the immediately pre-verbal position seems to be far more useful than the post-verbal for determining sub-classes. Sub-class (b) itself breaks down into two interesting "sub-sub-classes": 1) those that can occur either pre- or post-

11. See Sledd's criticism, pp. 342-3.

objectively, sometimes called "two-word verb adverbs" (*he wrote down the number*, *he wrote the number down*); and 2) those that can occur only post-objectively (*(He played cards thus*, *They drove the car there*). Class cleavage occurs with some words, like *down*; they are prepositions when they can only precede the object (*The oil ran down the motor*), but adverbs when they are shiftable (*The man ran the battery down* or *The man ran down the battery*)).¹²

3) Present methods of analyzing immediate constituents leave much to be desired.¹³ One detects in Roberts' treatment instances of what might be called "the lineal dilemma," the assumption that bi-partite constituency must always consist of spatially contiguous members: for example, we must cut Probably|| he went away rather than Probably he went away. Now the trouble with an insistence on lineal constituency is that it may contradict an essential axiom of linguistics, the axiom that contrasting structures signal contrasting meanings. If two structures do not contrast we take them to be non-significant variants. If we analyze Probably|| he went away in contrast to He|| probably went away we must be prepared to demonstrate in what way their meanings contrast. If there is no contrast in meaning, we must be suspicious of the alleged difference in structure. Let us consider Roberts' example:

When she got there|| the cupboard was bare.

The cupboard|| was bare when she got there.

According to Roberts, "In 'When she got there, the cupboard was bare,' the pattern parts [immediate constituents] are 1) *When she got there* modifying 2) *the cupboard was bare*. But in 'The cupboard was bare when she got there' the parts are 1) the noun cluster *the cupboard* and 2) the verb cluster *was bare when she got there*" (p. 113). My question is "To what episememe does this difference in structure correspond?"

Developing out of this view is Roberts' notion of "sentence modifier." "We call a structure that works against a main sentence pattern a sentence modifier. Sentence modifiers are regularly separated from the sentences they modify by double bar juncture." Sentence modifiers, according to Roberts, can occur before, amid, or after the sentences they modify:

12. See Edward Anthony's unpublished University of Michigan dissertation, "Test Frames with *Up* in Modern American English" (1953).

13. See Sledd. 343-4.

Standing on the bridge, the skipper studied the weather.
The skipper, standing on the bridge, studied the weather.
The skipper studied the weather, standing on the bridge.

It is difficult to understand why standing on the bridge is a sentence modifier in the post-position example (the third sentence above), while *When she got there* in *The cupboard was bare when she got there* is not.* Why, too, would *probably* be a sentence modifier in *Probably he went away* and only a modifier in *He went away probably*?

This takes us to the problem of what "modification" itself means. Modification is a concept which is fundamental to linguistic analysis, but one which we may have to take as *given*. (At least I have not seen any attempt to work out a purely formal definition.) We know what sort of a relationship must exist between elements to say that one is "modifying" the other, even if we are unable specifically to define the concept. Bloomfield suggested that the key to modification was substitutability: modification is endocentric, that is, the head and its modifiers can enter into any construction into which the head itself can enter. If this is true (and no one seems to doubt it), it seems to me impossible to agree to the legitimacy of the "sentence modifier" for the reason that sentences and "sentence modifiers" cannot enter into constructions which may be filled by sentences alone. For example, in the frame *Before _____, the dog ate heartily*, the sentence *the cupboard was bare* is substitutable for *that time*. Now *that time* may function as the head of any number of modifiers and still occur in the frame, but if *When she went there* is taken as a sentence modifier, the whole construct cannot occur in this frame. In theoretical terms, it seems doubtful that any exocentric construction can function itself as the head of an endocentric construction. All of which takes us back to the question of whether the lineal view does more to help or to hamper our insight into the structure of English.

If I may be so bold as to go a bit further, I should like to throw open the whole question of the utility of the binary view of immediate constituency. I can see how it is very useful in analyzing exocentric--that is, clearly two-element structures

*Although he does say so in *The Structure of English*, Fries would use intonation clues to distinguish sentence-modifying final included sentences from verbal-modifying final included sentences. [Review Editor]

(subject and verb, preposition and object, etc.)--but I wonder how useful it is in analyzing endocentric constructions. For example, in the noun phrase, how true is it to say that a prepositional phrase should be "peeled off" before an adjective, or that in a verb phrase, one should begin "with the modifier *before* the headword... Then... go to the modifier on the other side.?" Why does one proceed this way rather than vice versa? Why must we cut

The|| nice | boy || on the corner

instead of

boy . . . the|| nice|| on the corner?

That is, is there theoretical justification why the cut boy|| on the corner is of any higher (or any lower) priority than nice | boy? *On the corner* refers to *nice boy* in precisely the same way as *nice* refers to *boy on the corner*, and both can stand independently. So why start at the far right and proceed backwards? This question is not offered in a contentious spirit but in a sincere attempt to discover a rationale of IC analysis. Until this is forthcoming, I cannot see that our "peeling off" procedures are of much use.

II. The Pedagogical Application.

At the outset, I must applaud Professor Roberts for his successful presentation of a scientific English grammar for the schools. I am in complete agreement with his view that the subject of English structure should be taken as a good in itself, worthy of being offered to students as a contribution to their intellectual development. "I have learned to approach it first and foremost as a thing of interest, not as a means of social or literary improvement." (TG, f, 14)

But I do not agree with the view that grammar as such (either the old grammar or the new) will help substantially in the teaching of composition. The "carry-over," in my experience, at least, is far less than one would expect. I do not think that it is correct to say "It is precisely in the structure of the language that the student goes astray" (TG, 3). Students fail in rhetoric, not in grammar. Their whole problem is that

they are illiterate--that is, their writing does not come up to the standards assumed by writers of modern English. They do not know the table-manners of written English (regardless of how "senseless" those manners may be in terms of spoken English). They do not know how to cross the line between their own dialects and a more formal brand of English--in fact, they often are not even aware that there is a line. This inability is due to a variety of factors, many of them not bearing the slightest relation to language in the way we describe it: for example, an all too prevalent cultural fear and suspicion of the written word, a dislike of mental discipline of any kind (as inhibitory of "freedom"), a reticence to leave the comfortable ruts of teen-age conformity, etc. Roberts is wonderfully sensitive to these things, and a very stimulating paragraph describes his own pedagogical method:

I have come to think that it is only the very good student, or at least the advanced student, who can profit very much from having his papers copiously corrected and from being required to revise them. For the poor student, marginal corrections are likely to produce only bafflement and despair. As he writes paper after paper only to have them pitilessly dissected and their miseries displayed, he is in danger of acquiring an abiding hatred for English in all its aspects....

I have in recent years followed the practice of not marking the papers of students in slow or remedial sections. What I want from them first of all is fluency, an abundance of writing, without any consideration of whether the writing is good, bad, or mediocre. This writing runs parallel with a study of the language, such as that which *Patterns of English* provides, but without, at first, the drawing of any connection between the two.
(p. 15)

To this last sentence should be added the following: "The less specific application there is, the better"(p. 16). But this is awfully close to saying the "less application of grammar, the better," which is to admit that grammars as such contribute little or nothing to the problems of composition. Which, I think, is an interesting and possibly fruitful view.

It is my considered opinion that the vast majority of problems in student writing are non-linguistic: they involve lapses

in logic, diction, punctuation, organization, and other "interpretational" phenomena, but rarely the syntactic or morphologic structure of the language. This means that it may be premature to expect linguistics, in its present state at least, to be a panacea for the freshman composition teacher. A sound composition text must be based on metalinguistic, rather than microlinguistic analysis--that is, we need rhetorics, not grammars.

But this does not mean that the structure of the language should not be taught: all high school and college students should know how their language structures, and I know of no book which will help them more than *Patterns of English*.

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University of Pennsylvania

NOTES AND ANNOUNCEMENTS

THE MICHIGAN LINGUISTIC SOCIETY held its Spring meeting on May 11 on the campus of Eastern Michigan College, Ypsilanti, Michigan. Professor Bruce Nelson, Dean of Instruction, Eastern Michigan College, presided at the following program:

1. "The Personal Endings of Verbs in 17th Century American English," by O. L. Abbott, Michigan State University
2. "How Shall We Teach Spanish *Tuteo?*" by L. B. Kiddle, University of Michigan
3. "The Pikes Visit the Peruvian Indians," by Kenneth L. Pike and Evelyn G. Pike, University of Michigan

THE FRENCH SUMMER SCHOOL of Laval University in Quebec, Canada, will hold its Summer Session from July 1 to August 10. The Session is divided into two three-week periods. A student may register for the entire session or for either the first period (July 1 - July 20) or for the second (July 21 - August 10). The use of French is compulsory outside of as well as inside of class. For information on living accommodations, extracurricular activities and other matters write:

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PUBLICATIONS RECEIVED

This list constitutes acknowledgement of publications received by *Language Learning* not previously acknowledged. As space permits, reviews will be printed of those publications which make special contributions to the application of the principles of scientific language study to the practical problems of teaching and learning languages.

Boletin de la Academia Colombiana, VI, No. 2 (October-December, 1956).

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The English Teachers' Magazine, November, December, 1956; January, February, 1957.

Flood, W. E., *The Problem of Vocabulary in the Popularization of Science*. London: Oliver and Boyd, University of Birmingham Educational Monographs, No. 2, 1957.

Galinsky, Hans, *Americanisches und Britisches Englisch; Zwei Studien Zum der Einheit und Verschiedenheit einer Weltsprache*. Munich: Max Hueber, 1957.

Koumari, Ariadne, *Certain Uses of the English Passive Voice and Their Teachin to Foreign Students*. Thessaloniki, 1956.

Levende Talen, No. 188 (February, 1957).

Le Lingue del Mondo, XXI, Nos. 1 (January, 1957), 2 (February, 1957), 3 (March, 1957). Supplement, *Le lingue Estere*, December 31, 1956.

McCracken, George E. trans., *The City of God against the Pagans*, by Saint Augustine, Books I-III. Cambridge, Mass.: Harvard University Press, The Loeb Classics, 1957.

The MST English Quarterly, VII, No. 1 (March, 1957).

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PMLA, LXXII, No. 1 (March, 1957).

Prator, Clifford H. Junior, *Manual of American English Pronunciation*, New York: Rinehart, 1957.

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Zandvoort, W. W., *A Handbook of English Grammar*. London: Longmans, Green, 1957.

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